

THE
RURAL SCHOOL
—ITS—
METHODS AND MANAGEMENT

CULTER AND STONE

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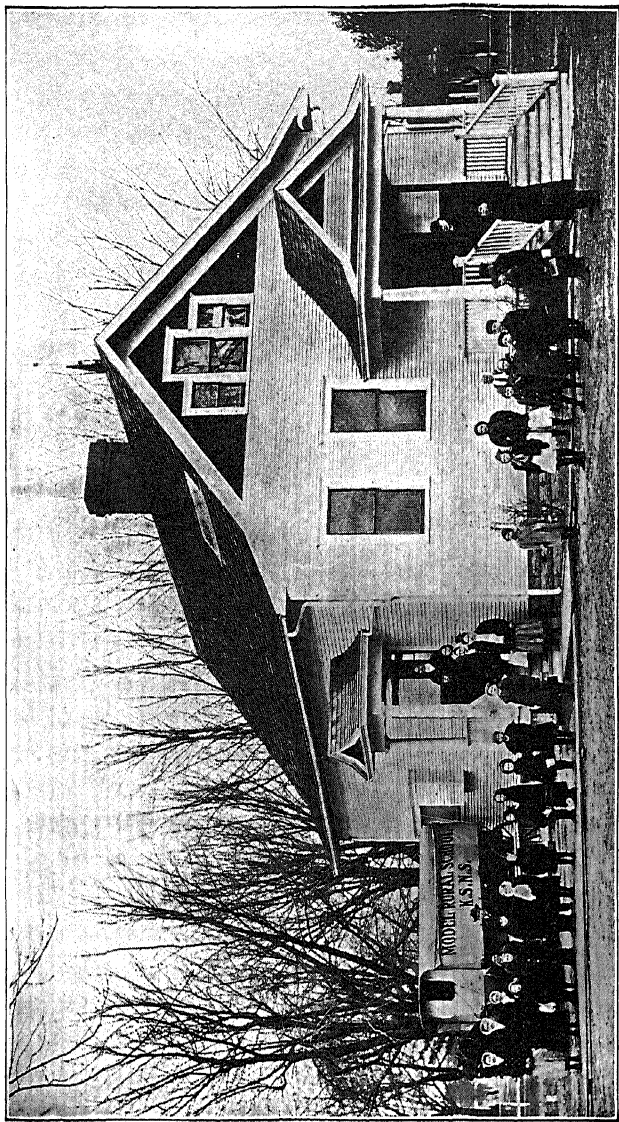
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CHILDREN STARTING HOME FROM A MODEL RURAL SCHOOL AT KIRKSVILLE, MISSOURI
(This school situated on the campus of the State Normal School was the first to transport children to and from school in Missouri)

THE RURAL SCHOOL

ITS METHODS AND MANAGEMENT

BY

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SILVER, BURDETT AND COMPANY
BOSTON NEW YORK CHICAGO

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PREFACE

THE present treatise on school methods and management is intended for teachers in the elementary country schools and for those in normal and high schools who expect to go into the rural schools to teach. The writer has studiously avoided all suggestions especially applicable to the management of city schools, and has purposely confined himself to such plans and methods as will be suited to the country school. While consolidation is an important movement, and many more weak districts should be united, yet in many parts of the United States the time is far distant when the one-room country school will, or should, be discontinued. A one-room school in the rural districts, taught by a competent teacher, is still a good place for a boy or girl to get the elements of an education.

The United States Commissioner of Education reports that in the school year 1907-1908 there were five and one half million school children and one hundred thirty-four thousand teachers in cities of four thousand or more population; in the outside districts, there were eleven million children and three hundred sixty-one thousand teachers. In the state of Kansas there are two and one third times as many children in the one- and two-room schools and nearly five times as many teachers, as there are in the cities and towns maintaining graded systems of schools. From the above it seems safe to conclude that in the United States there are twice as

many teachers in the rural schools and nearly twice as many children. But, up to the present time, the emphasis has been placed upon city school management and city supervision, and many of the suggestions offered do not fit rural conditions at all. It is the country teacher, especially, who needs instruction in management. The one-room rural school with the six to nine grades and twenty to twenty-five or more classes, is a much more complex institution to manage than is the one room of a city system. And if it were not, the city teacher is placed at a much greater advantage than the country teacher, for if assistance is needed, the city teacher may call to her aid the principal of the building, or he may consult the superintendent. On the other hand, the country teacher must be at the same time teacher, principal and superintendent. When in need, she may on Saturday drive ten or twenty miles and interview the county superintendent; or, if in dire distress, at the risk of her reputation as a teacher, she may ask that the superintendent come to her school and assist in settling some difficulty.

But an awakening interest in rural schools is evident on every hand, and many are coming to believe not only that there should be better supervision in the rural district, but also that the boy and the girl of the country should have as good school privileges as the boy and the girl of the city. The environment of the country school is better, the health and vigor of the young people of the rural district make them more receptive of educational advantages; there is less to distract from the school and its interests; yet many of the schools of the country are far behind the schools of the city. The truth of this statement is proved by the fact that many farmers move to town every year that they may send their children

to school. Again, six months of school in the country are not the equivalent of nine months in the city, and this is about the proportion of educational advantages offered in many of our states. In order that the country child may have as good school privileges as the city child, the country must have better schoolhouses and equipment; better supervision and more of it; longer terms of school; courses of study in harmony with rural conditions; and better teachers who have been trained for rural school work.

Besides school management, the rural teacher needs to know better methods, especially in primary subjects. Realizing this deficiency, a few chapters in primary methods, by Miss Stone, have been added, which are adapted to the work of country schools.

Out of an experience of many years as a teacher in rural, village and county high schools, and as a teacher of teachers, have the pages of this book been written; and it is offered to the public with the hope that it may add its mite to the improvement of rural schools.

A SUGGESTION

WHILE this book is intended primarily for elementary teachers, a more advanced study of the subjects contained in Part One may be had by supplementing the study of the book with the use of the reference bibliography which follows each chapter. Such a course, well done, will give advanced students quite a comprehensive view of Rural School Management.

HORACE M. CULTER.

ACKNOWLEDGMENTS

IN treating so many subjects as are contained in this book, it is not to be supposed that any one or two persons can be authority on all. As the reader peruses these pages, he will observe that many persons have contributed to the contents of this book. To these the authors express their grateful appreciation.

But special acknowledgment is due Joseph H. Hill, president of the Kansas State Normal School, for his hearty encouragement throughout the preparation of this volume; to Professor R. H. Ritchie, head of the Speech Arts Department of the Kansas State Normal School, for his careful work in correcting the manuscript; to Professor Frank A. Beach, director of music of the Kansas State Normal School, for writing the chapter on Music; to Professor W. G. Lewis, formerly professor of physics, for the chapter on Nature Study; to Mrs. Emily K. Hoelcel, for many helpful suggestions and for her work in criticising the chapters on Methods; to Mr. C. J. Brown of Louisiana, for valuable suggestions; and to Willis H. Kerr, of the Kansas Normal School library; to the Smith Heating Company and to the Waterman-Waterbury Heating Company for illustrative material; to the authors of "Farm Life Readers" for four illustrations from those books; and to many others who have so kindly made suggestions and contributed material for the various chapters of the book. They are deserving of a share of credit for whatever merit this volume may have and for whatever success may attend it.

CONTENTS

Part I

RURAL SCHOOL MANAGEMENT

| CHAPTER | PAGE |
|---|------|
| I. THE RURAL SCHOOL A LAGGARD | 1 |
| II. SCHOOL SITE AND GROUNDS | 5 |
| Choosing the Site — The School Grounds — A School Plant. | |
| III. THE HOUSE | 13 |
| The Need of Better School Buildings — Three Types of Houses — Equipment. | |
| IV. SCHOOL HYGIENE AND SANITATION | 28 |
| Precautions against Germs — Correcting Physical Defects — Lighting and Seating — Ventilation. | |
| V. THE TEACHER — HIS QUALIFICATIONS | 45 |
| Physical Equipment — Mental Equipment — Attention to Business Details. | |
| VI. THE TEACHER — HIS PERSONALITY | 56 |
| The Development of a Strong Personality. | |
| VII. THE FIRST DAY | 63 |
| Preparation for the First Day — Methods of Procedure for the First Day. | |
| VIII. THE DAILY PROGRAM | 71 |
| The Study Program — Arrangement of Classes. | |
| IX. THE RECITATION | 81 |
| Purposes of the Recitation — Mechanics of the Recitation. | |
| X. THE RECITATION (<i>continued</i>) | 93 |
| Devices of the Recitation — Methods of the Recitation — Induction and Deduction. | |
| XI. TEACHING PUPILS HOW TO STUDY | 101 |
| Stages in the Art of Study — Hints on Studying. | |
| XII. PLAY AND PLAYGROUNDS | 112 |
| The Function of Play — How the School Should Provide for Play. | |

| CHAPTER | | PAGE |
|---------|---|------|
| XIII. | THE LIBRARY AND ITS USES Acquiring a Library — What to Buy — Using the Library — Suggested Plan of Organiza- tion for Small School Library — A Working Library for Country Schools. | 125 |
| XIV. | SCHOOL GOVERNMENT Aids to School Government — The Infliction of Punishments — Corporal Punishment as Viewed by the Courts — Placing Pupils on their Honor — The Psychology of Motor Ac- tivities — The Use of Incentives. | 143 |
| XV. | SCHOOL ETHICS The Need of Ethical Teaching — Methods of Ethical Teaching. | 159 |
| XVI. | AGRICULTURE IN RURAL SCHOOLS Overcoming Obstacles — Outline of Work for a Rural School — A Lesson Plan — School Gardens — Contests and Clubs — The View Point of the Country. | 169 |
| XVII. | DUTIES OF THE TEACHER To the District — To Pupils — To the County Superintendent — To the Neighborhood — To Self. | 184 |
| XVIII. | THE OPPORTUNITY OF A RURAL TEACHER The Lesser Opportunities — The Great Oppor- tunities — What Has been Accomplished by Teachers in Country Schools. | 200 |
| XIX. | CONSOLIDATION Changed Conditions — Origin of the District Unit — Evils of the District System — The Larger Unit — Reports in Regard to Consoli- dation in Several States — Standardization of the Schools — Requirements for a Standard School. | 222 |

Part II

RURAL SCHOOL METHODS

| | | |
|------|---|-----|
| I. | PRIMARY READING Importance of Reading — Kinds of Reading — Methods of Teaching Reading. | 245 |
| II. | PRIMARY READING (<i>continued</i>) The Combined Method — Practical Suggestions. | 254 |
| III. | LANGUAGE WORK Elementary Grammar — Language Proper. | 266 |

Contents

xi

| CHAPTER | | PAGE |
|---------|--|------|
| IV. | BUSY WORK, WHAT AND HOW Busy Work for Younger Pupils — Busy Work for Older Pupils. | 282 |
| V. | NUMBERS The Number Idea — Objects of Number Teach- ing. | 295 |
| VI. | LEARNING TO WRITE Teaching the Beginners — Materials — Dis- cussion of Methods. | 310 |
| VII. | DRAWING How to Begin — Perspective — Scene Drawing — Suggestive Drawings for the Different Months — Paper-cutting and Design. | 319 |
| VIII. | MUSIC Importance — Equipment — Teaching in Groups — Appreciation of Music. | 337 |
| IX. | PHYSICAL SCIENCE Interest of the Subject — Lesson I: Why Hot Air Goes Up the Chimney — Lesson II: Physiology — Lesson III: Air Pressure — Subjects for other Lessons — The Fairy Chil- dren of the Ocean. | 349 |
| X. | GEOGRAPHY Suggestions for Oral or Primary Geography — Map Study — The Text Reinforced — Ad- vanced Geography. | 360 |

PART I

RURAL SCHOOL MANAGEMENT

The Rural School

Chapter I

THE RURAL SCHOOL A LAGGARD

SOME writers and lecturers are inclined to picture the rural school of to-day in a decadent and dilapidated condition. They would lead us to believe that the country school of our forefathers was a much better school than the country school of the present time. Although there are a few respects in which the schools of three or four decades ago were better than the schools of the present, the truth seems to be not that they were, necessarily, better schools, but that they were more nearly on a par with the conditions of country life.

In many respects, the twentieth-century rural school is far in advance of the schools of the nineteenth century. The houses are better, and better equipped; the teachers, though younger, are better educated; the curriculum is richer and more nearly adapted to the needs of child life; the school term is longer and the advantages of school are more nearly within reach of every child. There remain comparatively few of the old log or sod schoolhouses of pioneer days. Modern furniture has replaced the uncomfortable and unhygienic furniture made by our forefathers. The painted blackboard has given place to a good composition blackboard or to real slate. There are

more maps, charts and illustrative material than were in use in the old school.

The true basis of complaint is not that the rural school has not improved, *but that it has not kept and is not keeping, step with the onward progress of our civilization.* It is a laggard in the race with its sister, the city school.

While city school boards have been willing to expend large sums of money for good locations for buildings, in some instances paying fabulous prices for land and even going to the roofs for garden space and play room, the rural school has been expecting some one to donate land for a site, and has been willing to go to an unfavorable location in order that forty or fifty dollars might be saved to the district. The city schools have planted flowers and trees, have made lawns and watered them, and have hired janitors for the whole year in order that these might be properly safeguarded. On the other hand, to a great extent rural communities have considered these things all right for the city, but have not even given them a thought as being a part of the country school equipment.

While the cities have been, and are still, putting thousands of dollars into beautiful school buildings, equipped with every modern convenience, sanitary and comfortable to the highest degree; the country has thought itself well equipped if it had a structure of the "Box Car" type. Little or no thought has been given to lighting and heating according to modern methods. Although the city has been using single desks in its buildings for years, and is trying adjustable chairs and desks of latest pattern, the rural schools seem to think that the double desk is the only one manufactured. The city has invested much thought and no little expense in the architectural beauty of the buildings; the country seems to think that if the building is painted, sufficient money has been expended.

While the city has been spending money freely in order to install sanitary closets, the country has just passed the stage of two-closets-in-one-building style, and has just reached the place where every school ground has two outhouses, one for each sex. No city plans a building without providing for a system of ventilation. Often a large part of the expense is for heating and ventilation, — some even washing the air before forcing it into the schoolrooms. Yet, up to the present time, the friendly cracks have furnished inlets for most of the fresh air in country school buildings.

While the cities are demanding well educated and thoroughly trained teachers, often not accepting a teacher until he has proved himself by two or three years' experience; the country has been giving these teachers opportunities to make their initial trials in its schools, and, if they are successful, it has allowed them to go into the city, simply because the city would pay more than the country was willing to pay. This has resulted in giving the city the advantage of the experienced teacher and, as a rule, the teacher of strong personality.

While the cities are spending millions for playgrounds and their equipment, the country has done almost nothing along this line. The cities are buying land in the heart of the most populous districts, establishing play centers there and furnishing superintendents and directors of play. Up to the present time most people have thought that play has but one beneficial result, — that of furnishing exercise to the individual, and that the country boy and girl get plenty of exercise in their work, and therefore need no play. "*The country is dominated by work.*" It has lost, in large measure, the play spirit and has too often substituted evil and vice; until no longer is the country a safe moral retreat for boys and girls.

While the cities, under great disadvantages, have been teaching nature, the country has done little, though surrounded on every hand by nature's handiwork. While all city schools, worthy the name, have libraries more or less well equipped, many schools of the country have no semblance of one, not even a dictionary. While the cities long ago realized the importance of consolidation and concentration of forces, in order that expert supervision might be employed, the country is just beginning to realize that the consolidated school is a desirable type for rural communities.

But there is a brighter day coming for rural education. School men everywhere are thinking, talking, and planning for the rural school. It is beginning to be realized that there are advantages to be derived from life in the country which cannot be duplicated by city life; that the country school, though a laggard, has some good features which, if utilized, make for good citizenship and noble manhood. No well informed person can deny that the product of these country schools has resulted, in many instances, in the highest type of American manhood and womanhood. All that seems to be needed, in order to bring the country school to a degree of efficiency commensurate with its opportunities, is an awakened sentiment on the part of country people which will demand for the rural schools of this country, (1) a better and more efficient organization, (2) closer and more effective supervision, and (3) more competent and better trained teachers.

As stated in the preface, it is not within the province of this book to treat all these subjects; but rather to limit the discussion to methods and management, adapted to rural conditions, so that the young teacher who goes into the country may be forewarned and forearmed.

Chapter II

SCHOOL SITE AND GROUNDS

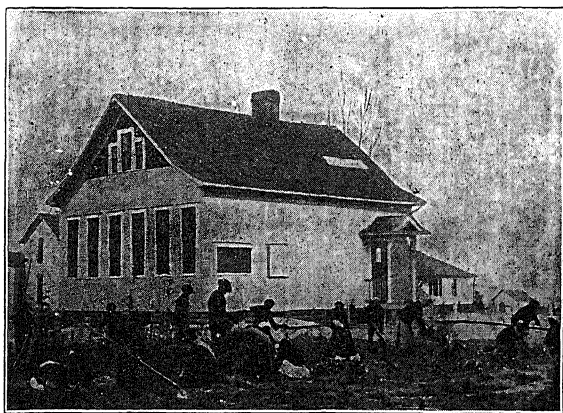
CHOOSING THE SITE

Selfish Motives. — Where the schoolhouse shall be located has been the source of numerous contentions, which, in many cases, have lasted for years. Ofttimes these contentions have set neighbor against neighbor, and have resulted in great detriment to the school interests, because they have been fostered by selfish motives and have not been based on broad economic and hygienic principles. In the selection of the present sites for schoolhouses, one idea seems to have prevailed, and that idea has been to get the schoolhouse as near to "my farm" as possible. Apparently, no thought has been taken with regard to the suitableness of the soil, slope of the ground, or its elevation or depression.

The Idea of Centrality. — Although the house should be located near the center of the district, there are other considerations. This principle of centrality is not so binding that, in order to place the house in the center of a district, it be located in a pine woods or in the middle of a pasture, where the children will be in danger of being maimed by the cattle, and where it can be reached only by leaving the public highway; or that it be set on top of a hill where nothing except a few rocks have been able to remain, the thought being, no doubt, that since noth-

ing else will grow there, surely the tree of knowledge will; or finally, that it be situated in a low, marshy place where the mud will be a source of annoyance and inconvenience for a large part of the year.

The schoolhouse ought to be located near a public road, in a place accessible to all in the district. The soil ought to be the richest the district affords, such, at least, as will produce grass, flowers and trees. This will preclude the



THERE SHOULD BE A PLOT FOR A SCHOOL GARDEN

hilltop where there is no soil. It should not be in low swampy ground, but in a place well drained. The people should realize that as they are establishing a plant in which to grow boys and girls, everything ought to be of the highest quality available.

Size. — The regulation size of the school ground in one western prairie state is one acre. Provided that the school is small and there are no large boys and girls that need room for their various games, and provided that no attention is to be paid to experimental agriculture or

school gardening, this is large enough. If the pupils are to play "ante-over," "black man" and "tag," this plot will do. But if there are to be flowers, trees, a place for the little ones to play, and a playground for the older ones, an acre is not enough. If there is to be a plot for a school garden, a piece of land for experimental agriculture, and room for stables for the horses of those who drive to school, an acre is not nearly enough.

For a good-sized district school, there ought to be from an acre and one half to two acres; for a consolidated school or a very large district school, especially where agriculture and school gardening are to be taught, there should be not less than three acres. This will give room for the house, playgrounds for the little folks, tennis court, baseball diamond, stables and sheds, plots for agriculture and gardens.

THE SCHOOL GROUNDS

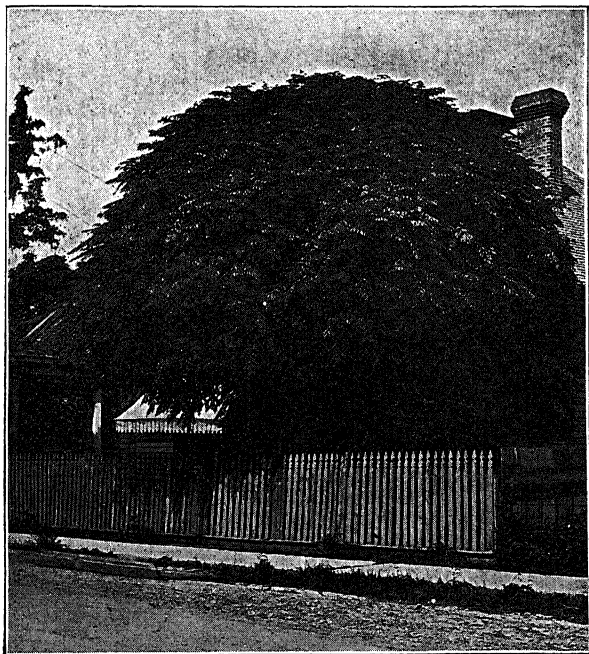
Plan of School Grounds.—Where feasible, the house should be situated at a crossroad. It will then be more accessible to patrons of the district, and a corner makes a better location for the grounds. The house should be placed near one corner of the lot, leaving a small L-shaped place between the house and the sides of the lot for trees, grass and flowers. A four-foot walk should lead from the road to the main entrance. This may be made by using two-by-fours for the edges, and filling in between with coal cinders and salt. - This will in time pack into quite a hard surface, and is much better than no walk. The cost of such a walk is insignificant. Of course, cement or brick is the better material.

If the water-closets are to be separate from the building, a walk should lead to each from its side of the house.

The closets should face in the same direction as the house. In front of each and extending back on the sides next to the house, there should be latticework completely screening the doors from the road and the house. Morning-glories, or some other vine, may be planted to run over this latticework. Good screens may be made by using common boards in place of the latticework. These should be capped by a two-by-four and a strip of moulding, and the whole should be well painted. Vines here and at a window or over the coal house will add much to the looks of the yard. The well should be located at one side and convenient to the front door. The stables and sheds should be at the back of the lot.

Trees. — A school ground will not be complete without shrubs and trees. Why are there not more trees around schoolhouses? Simply because no one has been interested in having them planted. Who must make the start? The teacher will have to be the prime mover in the enterprise. Let the teacher call to his assistance the boys and girls of the school. Getting them interested in planting a tree is worth as much or more than the planted tree. Old men like to plant trees, young men do not seem to have time, or think that it will be too long before the tree will mature. The old men and the young people of the school can be interested in observing Arbor Day. In his book "Among Country Schools," Supt. O. J. Kern has this to say about observing Arbor Day: "Let us observe Arbor Day in every school with appropriate songs and exercises; but let us not forget to *plant* when planting needs to be done. For schools whose premises are treeless the proper thing to do would be to *dig* rather than *sing*, if only one could be done in a day. What is the use of singing about trees and ending with that, when planting and caring for trees is needed?"

"No, Arbor Day has not been observed in the proper spirit, when some afternoon a little boy recites, 'What Do We Plant When We Plant the Tree,' a class of girls sing, 'The Brave Old Oak,' and then all go to work on



THE UMBRELLA TREE
A good shade tree of the South

the arithmetic lesson, leaving the ground as desolate as it was before."

The kind of trees to be planted will be suggested by the trees that grow in the neighboring forests and are cultivated for shade in the dooryards of the neighborhood. In many parts of the middle west, the problem is not so

much what to plant, as how to get the trees to live after they are planted. Of course where there is not rain during the summer months, and scarcely any during the winter, trees will not grow without irrigation. In the semi-arid districts there are three ways of growing trees: first, by watering them; second, by cultivating the ground, keeping down all the weeds and keeping the surface of the ground loose and mellow; third, by mulching with a heavy coat of straw or hay, or something that will conserve the moisture that falls. The first of these plans could be used for a few trees by having a windmill to pump the water; then, if the ground were so arranged that a ditch would lead the water from one tree to another, with a very little care the trees could be watered throughout the summer. The second way is hardly practical in the ordinary district, but the third could be easily carried out. One mulching a year would be sufficient.

The hardiest tree for the western plains is the honey locust. It will live through more drought, and will survive with less care than any other that has been tried. The catalpa also survives well under adverse conditions.

In planting trees, the playgrounds should be preserved. They should be planted around the outside of the grounds, in the corners, and about the outbuildings. Nature plants her trees in clumps, and Nature knows how to make them look well.

A School Site in the Timber. — In many parts of the South and in other timbered districts, the question is not so much one of planting trees and getting them to grow, as it is a problem of clearing a place for the school-house. Too often the clearing is just large enough for the house, no room being provided for school garden and playground; nor is any thought given to the attractiveness of the place. What an advantage these conditions

offer over those in the dry prairie districts where it is hard to get trees to grow! A little forethought, leaving a tree here and one there, digging and transplanting a few native shrubs and vines, rounding out this corner and covering that unsightly place, will produce a veritable Garden of Eden in the midst of a forest of trees and furnish a picture lesson for every home in the vicinity.

A SCHOOL PLANT

When the rural school comes into its own, when it furnishes the education which the country needs, when patrons and school officers realize the possibilities of the school, there will be, not a schoolhouse, but a school plant. This will consist of a plot of ground, a house, a barn, a home for the teacher, and such other accessories as the occupations of the community may demand. The house will be fitted for the occupation of a modern school, a place where the various lines of work needed under present changed conditions can be performed. Manual training, domestic science, basket-weaving, agriculture, etc., besides the usual program of the school, will enter into the consideration of the plans for the house and of the selection of the grounds. The teacher's home will be a neat modern cottage fitted for the use of the teacher and his family. The barn or stable will be for the accommodation of the teacher, and those who ride or drive to school. The plot of ground will consist of ten or more acres which will be used for playgrounds, school gardens, experimental agriculture, etc., and will make possible work along lines which will be significant. A gasoline engine, a pump, a dynamo and a pressure tank in the basement of the schoolhouse will make possible sanitary water-closets, and shower baths and electricity with all

of its conveniences. With no extra expense, except for piping and wiring, these conveniences may be carried to the teacher's cottage. Somewhere on the grounds, either in the basement of the schoolhouse or in the teacher's kitchen, a motor could be installed which would run a cream separator, a churn or a Babcock tester, a washing machine, a sewing machine, a vacuum cleaner, or whatever other machinery might be desired.

Under these conditions instruction could be given in the household arts, dairying, farm management, etc., by the teacher, or in case of a consolidated school, by some two or more of the teaching force.

In some instances there could be located on the school site a cannery, a drying kiln, a shop of some kind, or some other community interest. The school grounds should also be the place where the young people may gather for their games. Here should be the meeting place of the literary society, the Sunday school, the Farmers' Union, the Mothers' Club, etc. It should, in fact, be the social center of the whole community.

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Chapter III

THE HOUSE

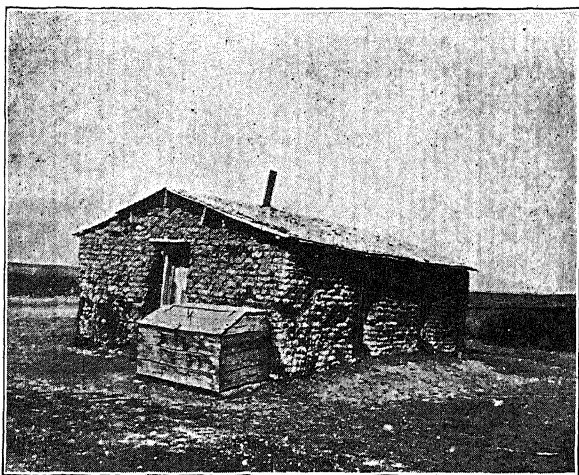
THE NEED OF BETTER SCHOOL BUILDINGS

WHEN Garfield said, "A pine log with the student on one end and Dr. Hopkins on the other would be a liberal education," he uttered it to emphasize the importance of the teacher, but not to minimize the need of a proper house in which the teacher may do his work.

Silent Forces. — There are certain silent and unseen forces in nature which accomplish wonderful results. A very little water in the crevice of a rock may, when it freezes, loosen a huge boulder from its bed and send it thundering down into the valley below. The silent action of the sun's rays breaks up the rivers of ice and lifts into the air tons of moisture that later come down in showers and storms. So in the realm of culture there are certain forces, which, though silent, are nevertheless powerful, exerting influences and ennobling characters. In one of his orations, Cicero says that he placed before him the portraits of great men in order that by beholding their likenesses his life might be influenced by their noble examples and that he might grow more noble by looking upon their faces.

Better Houses. — The beautiful has always been associated with the good, and the ugly with the bad. The modern house should have a more pleasing architectural appearance. The older types of houses were made with

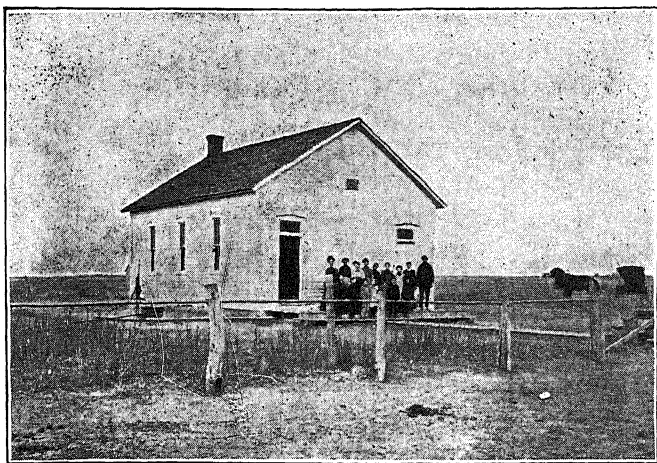
two objects in view, cheapness and usefulness. The question of beauty did not enter into the consideration of their construction. They served their day and purpose and were more or less suited to the times, but conditions have changed and people are building better houses in which to live and better barns in which to house their stock; they are buying better vehicles in



A SOD SCHOOLHOUSE OF WESTERN KANSAS

which to ride and are able to build better houses in which to educate their children, — houses that are more pleasing to the eye and that speak of the beautiful in life and character.

If there were no other reasons why there should be better schoolhouses than those given above, they ought to be sufficient; but there are other reasons why the buildings in almost every district should be better than they are at the present time.

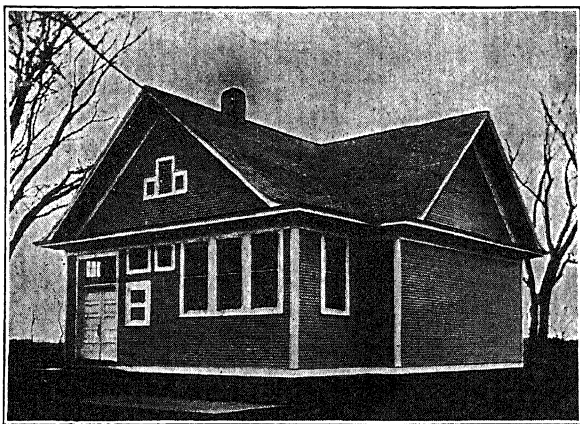


A BOX CAR SCHOOLHOUSE

Economy. — It is a matter of economy that the schoolhouse should be comfortable. In India the priest may gather his pupils under the shade of a tree, for he has not much to teach them and his school has not the vim of an American school; but in this country of extremes of heat and cold, such simplicity is not to be thought of. In this land of the strenuous life, the house which will accomplish the most in a given time is the one to be considered. The log cabin with its puncheon floor would do for the pioneers of this country, for it was the best they could afford. The log cabin, as we have said before, has served its day and age in the hills of the east and in the mountain regions of the west, as the sod schoolhouse has on the plains of the middle west. The one gave place to the "little red schoolhouse" if such there has ever been, as the other has given place to the white Box Car type. This might be called the age of the

Box Car schoolhouse. It is a better house than the log or the sod house, but perhaps we are entering the era of a new and more scientific and hygienic type of school building.

The actual outlay for one of these modern houses will be more than for either of the other two, but in the long run it will be more economical. It will be better heated, better lighted, better ventilated, and better



A BETTER HOUSE OF MODERN TYPE

Containing a workroom, fuel room, modern lighting, heating and ventilation

equipped. Both teachers and pupils can do more work, and work which will be more efficient, in it than in a building of the old type; hence it will yield a better income on the investment.

Hygienic Considerations. — As suggested above, the modern house will be more hygienic. Schoolhouses, when new, are very close and need constant ventilation; when old, they are too open and are hard to keep warm. In a

new house, on account of faulty ventilation, colds or other contagious diseases are likely to spread through the whole school, while in an old house, the difficulty in keeping the building warm results in more or less sickness.

Heating and Ventilation. — The subject of heating and ventilation will be discussed at greater length in a later chapter on Hygiene and Sanitation. The school-house should be heated by some system other than a common stove set in the middle of the room. With this latter method, invariably some will be too warm and others too cold. There should be some method of ventilation other than that obtained by opening the doors and windows. Hon. C. P. Cary, State Superintendent of Wisconsin, has suggested the following as a method of ventilation. The chimney built from the ground up is made extra large so that an eight-inch heavy iron pipe may extend within the chimney from the point where the stove pipe enters the flue up to and a little above the top of the chimney. This iron pipe receives the pipe from the stove and all the smoke and gases go up through this and not through the flue proper. Near the floor a register is put in the chimney, furnishing an outlet for the foul air of the room. The inner pipe heats the air in the flue and causes a draft in the flue proper. If now the stove is set in one corner of the room near the chimney, and surrounded with a good jacket into which fresh air is admitted through a pipe from outside, a good system of heating and ventilation will be provided for the room.

It is quite essential that the flue be quite large, say sixteen inches square; that the jacket entirely surround the stove (a shield will not answer the purpose), and that it contain a door that may be closed tightly; that

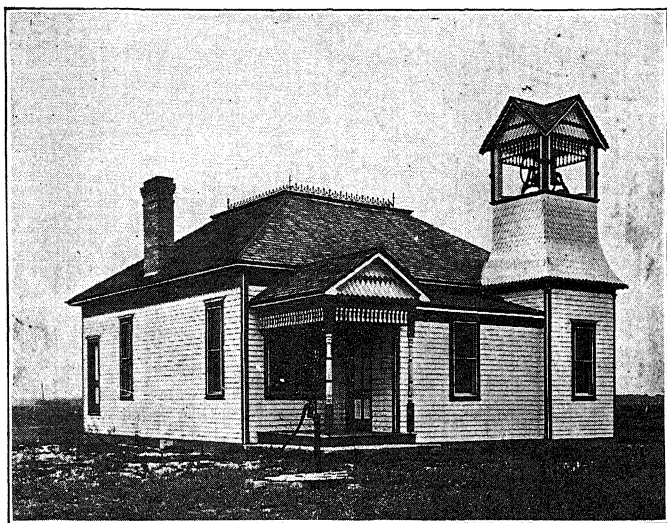
the cool fresh air be so admitted that it will be heated before it can fall to the floor; that all doors and windows, and ceiling and floor of the room be tight so that the warm fresh air will not escape and so that the cold air will not enter the room before being heated.

Many schoolhouses could be heated by a furnace. A basement will be required, but this provides a place for fuel and other conveniences, such as a pump and a tank for supplying water for toilet rooms, and under some conditions a room for manual training or play. Of course fresh air and an outlet for the impure air should be provided with the furnace, just as with the stove and jacket.

Light. — In the modern schoolhouse the light is not admitted from both sides of the room as in the common schoolhouse, but comes mostly from one side. If there could be no break in the surface admitting light it would be all the better. Some sunshine should enter the room, but the north light is the best for general purposes and should come from the left side. The walls should be calcimined or painted with a paint giving a dull finish. A glossy or varnished surface is hard on the eyes.

THREE TYPES OF HOUSES

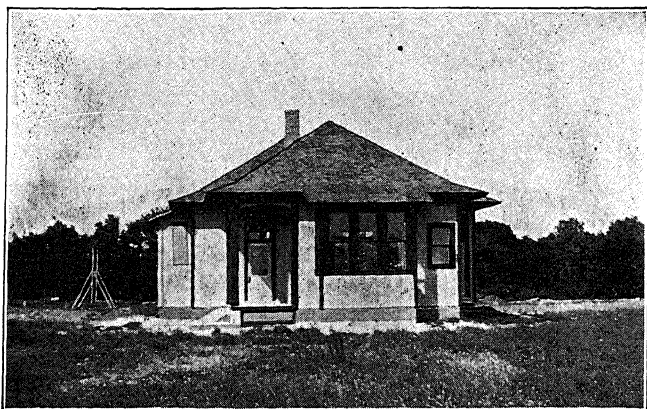
The interest in modern schoolhouses has produced three types. The first may be called the social type. The special feature of this house is a platform two or three steps above the main floor, with two small rooms, one on each side of the platform. When entertainments are given the platform is used as a stage and the two small rooms as dressing rooms. During the regular work of the school, one of these rooms becomes the teacher's room, the other, the library or a storeroom for maps,



THE NORTON COUNTY HOUSE

charts, etc. The second type is called the manual type. In this there is a workroom separated from the main room by a glass partition. In this room the teacher may give lessons in manual training, domestic science, basketry, etc., and leave the pupils to finish their work at odd times as convenience may dictate. Since the partition between the two rooms is of glass, the teacher may be in either and still keep an eye on every pupil. The third or combined type unites in one house the essential features of the two just mentioned. This style extends the possibilities of the social features of the one and enlarges the use of the workroom of the other. If this room is well built, so as to guard against frost, and well lighted, plants may be grown, seeds germinated, and other experiments in agriculture conducted here.

The first of these types is well represented by a school-

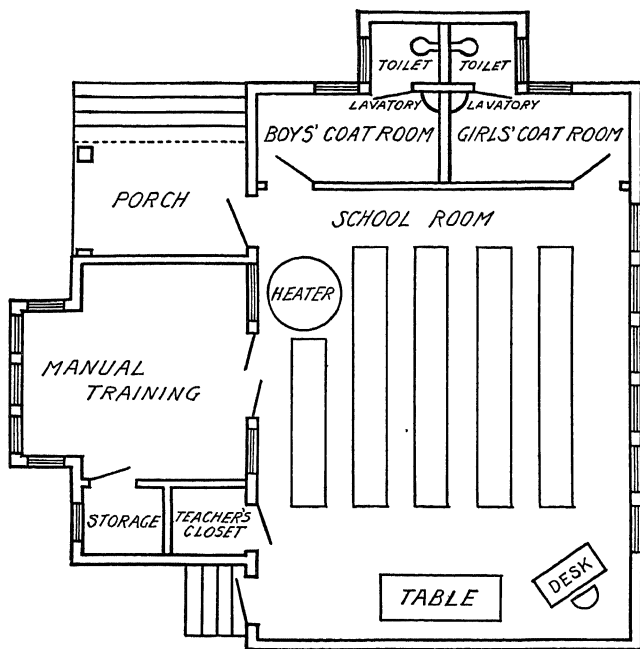


HAYS HOUSE

house that was built a few years ago in Norton County, Kansas. The social feature of the Emporia plan given on page 23 was borrowed from this house. This plan of house emphasizes the idea of the school as a social center of the community.

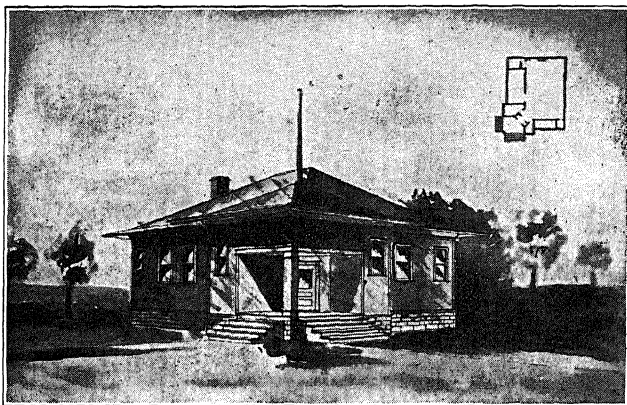
The second type is illustrated by a schoolhouse built on the campus of Cornell University intended as a model for rural school buildings in New York State. Another of the same type is on the campus of the Branch Normal School at Hays, Kansas. The distinctive feature of this type is the room for manual work. The workroom is separated from the main room by a glass partition, so that pupils working in this room are in full view of the teacher. It is fitted up with benches and tables for woodworking, sewing, basketry, etc. See floor plan on opposite page.

The third type combining the features of the Norton County house and the Cornell structure is represented by a floor plan worked out by pupils and teachers at the Kansas State Normal School at Emporia.



PLAN OF HAYS HOUSE

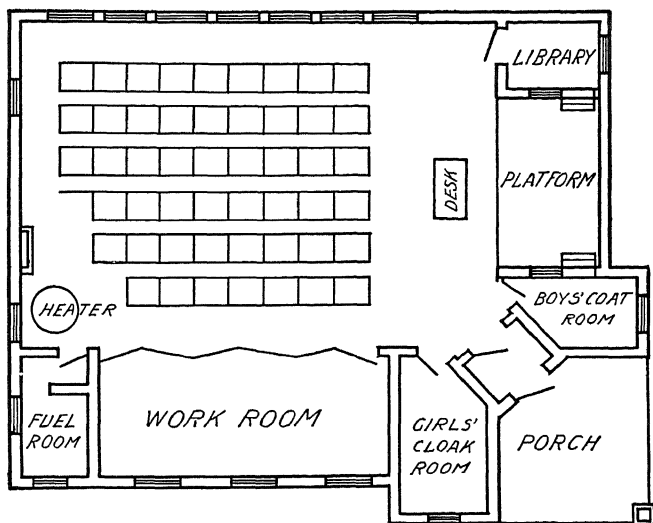
Emporia Plan. — This plan lends itself especially to the work of a one-teacher school, where more or less handwork is to be undertaken. Attention is called to the two cloakrooms so arranged that pupils must come into the schoolroom before entering them. This gives the teacher better control of the rooms, and will prevent inappropriate mingling of boys and girls, and will bring them more completely under the watch and care of the teacher. The entry is purposely small, serving principally as a storm door and as a place for overshoes and rubbers. The inner door should swing both ways. The platform serves the purpose of a stage; and by having



EMPORIA HOUSE

doors leading from the boys' cloakroom and the library and a curtain stretched in front, it will fulfil its purpose very well. The library should be furnished with some shelves for books and serve as a place for maps, charts, globe, etc., and as a teachers' room. The workroom is separated from the main room by folding doors, which have the upper panels of glass. A pupil may thus work at his task and still be under the eyes of the teacher. Teachers will appreciate the fuel room on the same floor with the heater and near to it, so that all dirt and ashes may be swept back into this room.

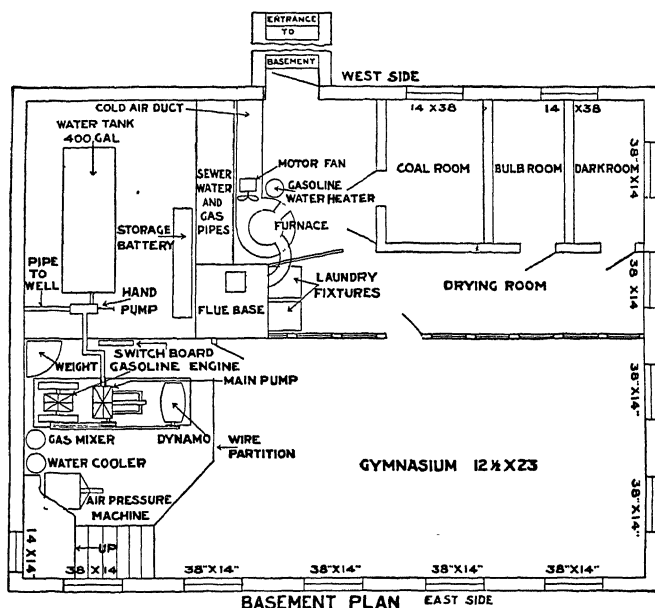
While this plan is compact and lends itself admirably to the oversight of one teacher, it also presents attractions as a social center. With the conveniences furnished by this house, dramatization, which is occupying such a prominent place in the curriculum of the city schools, can be introduced into the country school. Think of it as a place for a home talent play or for a Sunday school or a meeting place for the Grange or Farmers' Union.



PLAN OF EMPORIA HOUSE

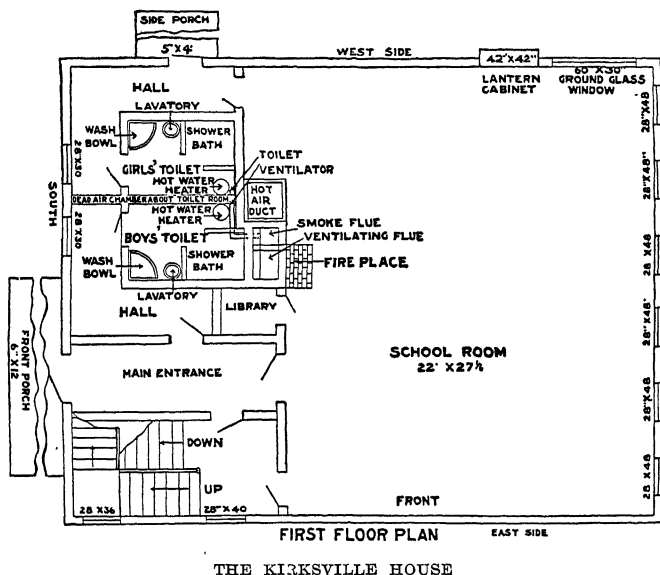
An anteroom could be provided for by enlarging the entry and cutting a door from it into the girls' cloakroom.

The schoolhouse described above should be built in almost any part of the United States for not over \$1800, but, if a district so desired and could afford to expend \$2500 or \$3000, a basement could be put under the whole, in which could be placed a furnace, fuel room, pump, pressure tank, gasoline engine, dynamo, and a play room for rainy days. Then, if the cloakrooms were enlarged a little, modern sanitary toilet rooms could be introduced, giving the country school the advantages of a modern house the same as the city school. If farmers could realize what these improvements would mean to their girls and boys in pureness of thought and cleanliness of character, many a rural schoolhouse would have them.



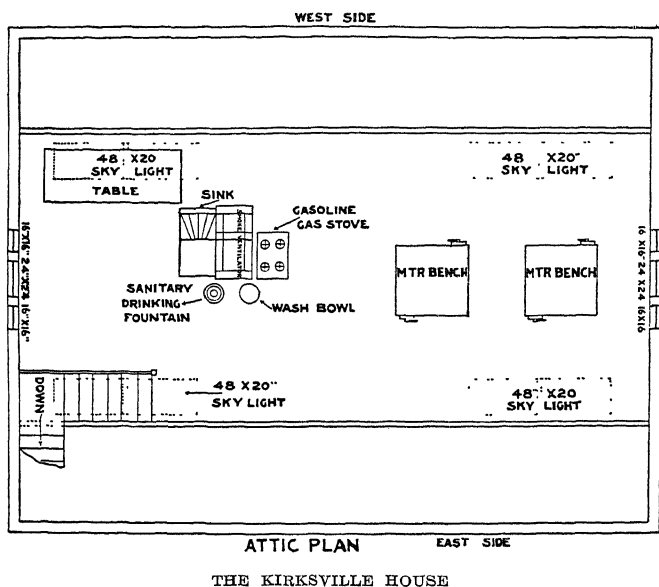
THE KIRKVILLE HOUSE

Kirkville Plan. — The most complete and entirely modern schoolhouse in America, perhaps in the world, is the one on the campus of the First District Normal School at Kirkville, Missouri. President Kirk of this school was early interested in better rural schoolhouses, and built a small model on which he received a premium at the World's Fair at St. Louis. A building after this pattern was erected on the Normal campus. There are toilet rooms in this house fitted with lavatory, shower bath, and water-closet. The house is piped for water and the pressure is furnished by means of a pump and pressure tank in the basement. It is heated with a furnace situated in the basement, through the jacket of



which air is forced by means of a fan. A double flue extending from the basement floor receives the smoke from the furnace on one side and the impure air from the schoolroom on the other. In order to insure a sufficient draft to ventilate the room, a fireplace has been built in the ventilating shaft. The burning of a few papers in this will give the air an upward movement, and the heat from the other shaft will continue the flow.

This house has electric lights, hot and cold water, gas, fan ventilation, a playroom in the basement, domestic science and manual training equipment, a drinking fountain, a stereopticon, and a bed for use in case a child is sick. All this and more was secured at a cost of less than \$3000. Study the plans shown.



Notice that all of these houses have porches, that the light comes principally from one side, and that there is some attempt at architectural beauty. Without exception, in the planning of these modern houses the Box Car type has been discarded.

EQUIPMENT

There are certain accessories to a building which are needed to make it complete. First, there should be two cloakrooms, one for the boys and one for the girls, and, where possible, each should open into a toilet room equipped with lavatories and water-closet. There will probably be less disturbance in these cloakrooms if they open into the main room rather than into a general hall.

The room should be seated with single seats, the small ones in a row on the side near the light, then the next larger, grading up to the largest in a row on the opposite side of the room. This plan of seating will not bring together a low desk and a high seat, a combination which is very uncomfortable and very unhygienic. There should be a bookcase that can be locked, a closet for apparatus such as maps, charts, globe, etc., and a cupboard for material for the seat work. A good clock within the building and a clear sounding bell on the outside in a neat tower are more than conveniences.

With the advantages offered by one of these houses, Mark Hopkins would have had a better opportunity to teach Garfield than if they were compelled to sit on opposite ends of a pine log.

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Chapter IV

SCHOOL HYGIENE AND SANITATION

PRECAUTIONS AGAINST GERMS

Germ Theory. — The germ theory of disease has passed the theory stage and has entered the realm of fact. It is now known that many, and almost certain that most, diseases are caused by microorganisms or germs. These disease germs enter the body, take up their abode there, and cause the host to become sick.

Consumption. — It is well known that consumption is caused by a microscopic organism called *tubercle bacillus*, which is breathed into the lungs. If the condition of the lung is favorable to the growth of these germs, they take up their abode there and begin to multiply. The process of destroying the lung begins, and consumption develops.

This disease is not inherited, as was thought some years ago, though some tendencies are, but comes from bacilli that are breathed into the lungs. All sputum of a consumptive contains these germs and they are thrown off with this discharge, myriads in number with each expectoration. They are probably not in the exhaled breath. If this sputum is allowed to dry and become dust, the germs then float in the air or cling to particles of dust ready to be inhaled by some other person. Like corn and wheat, these germs are not killed at once by becoming dry. When they fall on fertile soil they multiply.

Typhoid Fever. — The germs of typhoid fever are of a different kind. They attack the bowels of the human being and give off a poison that is carried all over the body in the blood. They pass off with the excreta and are very tenacious of life. They are disseminated through the food and drink. Flies carry them on their feet from barnyards and outhouses and leave them on the food of the table. Flyspecks likewise contain the typhoid germs. The nurse, if she be cook also, may contaminate the food of the household and thus spread the disease through the whole family. Ordinary cleanliness is not a safeguard in case of this disease.

Diseases of the Eye. — Sore eyes may be communicated by means of the common towel. Also, children afflicted with sore eyes are inclined to rub their eyes with their hands. In this way germs may be left upon desks, books, slates, doorknobs, stair banisters, etc. The teacher must exercise constant care and watchfulness and instruct the parents through the children in sanitary precautions.

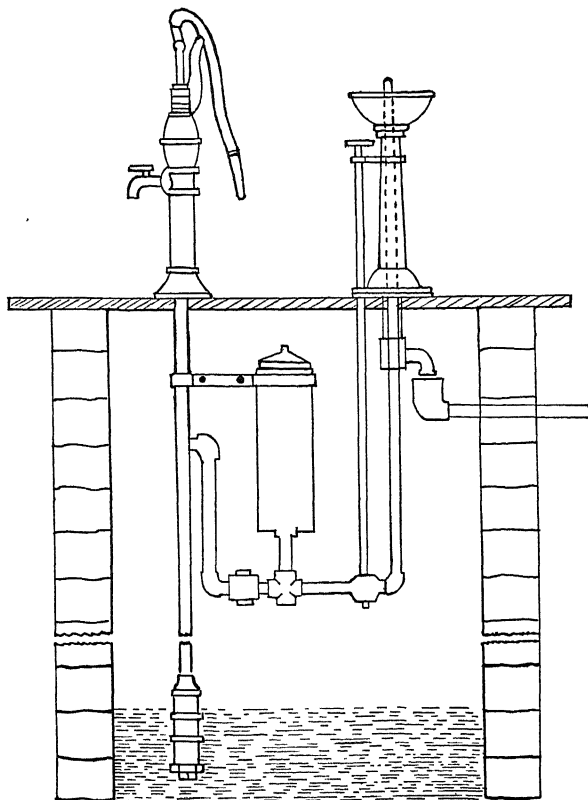
Preventing the Spread of Contagious Diseases. — It is safe to exclude from school all children afflicted with any contagious disease. This suspension should extend to all members of the family. While it may seem a hardship to keep well children out of school, nevertheless, the whole community must be protected even at the expense of one family. The germs of these diseases may be carried in some way by well persons. The health officer should be notified, and an order from him or some competent physician should be received before admitting them again to school.

Precaution Against Disease. — Our knowledge of germs admonishes us to scrupulous cleanliness. No teacher afflicted with tuberculosis should be shut up with pupils

in a schoolroom. In homes of persons afflicted with consumption all sputum should be burned. No persons should spit upon the floor of public buildings or upon the sidewalks. There are other germs that are contained in the sputum besides those causing consumption. Many diseases are disseminated by the common drinking cup, by sputum on the sidewalks and floors, by the exchange of pencils that have been wet in the mouth, by second-hand books, by doorknobs, etc.

Removal of Dust. — Remember that disease germs harbor in or are a part of the dust of all places inhabited by human beings. The watchword of the housewife and all school officials should be, "Fight the dust." It is not enough to raise a dust with a broom and feather duster, but it should be removed from the room. The feather duster has been tabooed; it simply scatters dust to fall later in some other place. The housewife's "dusting rag," moistened with coal oil, is better than any duster. After sweeping, all seats, tables, desks, and every place where dust can settle should be gone over with the dust rag and the dust gathered into it. The rag should be burned, or thoroughly cleansed with boiling water.

Precautions in regard to Slates and Pencils. — The use of slates has almost become a thing of the past. If they are used, a bottle of water should be kept near at hand, and pupils should be required to use it for moistening sponge or rag. They should not be allowed to wet the slate or rag with saliva, for then both become harbors for numerous disease germs. The New York Board of Education in one of its rules requires that the pen and pencil furnished to each pupil shall be used by that child alone, until such time as it seems best to give it to another, when it must be thoroughly fumigated and cleansed. A



SANITARY DRINKING FOUNTAIN
(McCalve)

very unsanitary habit is that of putting the pencil into the mouth. If the pencils are dipped into quinine or aloe water, children can be broken of this habit.

Drinking Water. — Typhoid germs may pass down with the water into the ground and get into a well or cistern. In determining the position of the well, great care should be taken that it shall not receive the drainage of outhouses

or stables. The well should be thoroughly cleaned at the beginning of each school year. At least, it should be pumped out two or three times before any of the water is used after the summer vacation. The fact that water is clear and sparkling does not indicate that it is free from disease germs, for they are invisible to the naked eye.

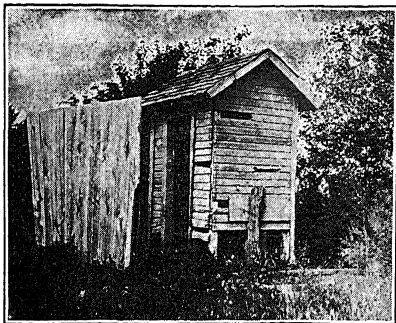
If the water must be brought from a farm house, there should be a covered receptacle in which to keep it. It should not be left to stand in an open bucket in the room. Since there are many disease germs in the air, mingling with the dust of the room, and since they are carried on the children's clothing, if the water is left uncovered, they will be taken into it. The *tubercle bacillus* and many other disease germs are often found in the mouth and may be left on the drinking cup. In order that these disease germs may not be disseminated in this way, each pupil should be required to own and use his own drinking cup.

Flies.—The common house fly breeds in barnyard manure and other excreta. If manure were kept in closed receptacles or spread upon the fields, flies would have no breeding places and would in time become extinct. Through draining the swamps and pools of stagnant water and thus getting rid of the mosquito, the carrier of malarial germs, this disease has almost become a thing of the past. In a similar manner, by destroying the breeding places of flies, we shall get rid of them also and free ourselves of much annoyance and sickness.

Sanitary Closets. Too much importance cannot be placed upon the installation of sanitary closets. In those parts of the country where typhoid fever is prevalent, much of the well water is contaminated by seepage from some ill-kept water-closet. Even springs have been known to be tainted by an outhouse situated above on the side of the hill. In the Southern states where the hookworm

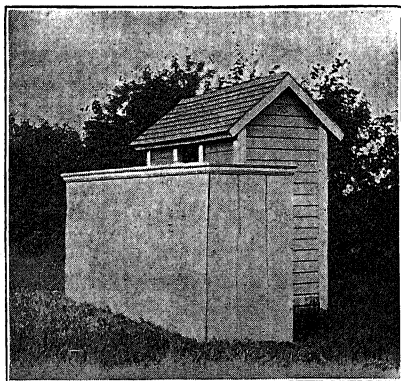
thrives and does its mischievous work, the ground becomes saturated with filth and hookworms. These worms enter the blood of the individual through the soles of the feet, and lodge in the intestines, where they do their harm. Sickmess

and loss of life caused by lack of reasonable sanitation are sufficient reasons for the installation of sanitary closets.



A DISGRACE TO ANY COMMUNITY

CORRECTING PHYSICAL DEFECTS



THE KIND OF SANITARY CLOSET ANY
SCHOOL CAN HAVE

Adenoids and Enlarged Tonsils.— Many children are afflicted with enlarged tonsils and adenoids, a growth in the upper part of the nasal passages. These enlargements obstruct the free passage of the air through the nose and in other ways affect the health of the

individual. Persons afflicted in this way usually breathe through the mouth. If allowed to remain, these little enlargements become serious and greatly hinder the

child in his development. Children who are troubled with adenoids or enlarged tonsils should be taken to a competent physician, and the abnormal growth should be removed. By watching for the mouth-breathers and that peculiar hollow sound which accompanies adenoids, the teacher can detect the pupils who need attention.

Defective Eyes. — There are few schools in which there are not pupils with defective eyesight. Many cannot see as well as others, but they do not know it. They have never noticed that they have to hold their book nearer to their eyes than other pupils do. This the teacher should notice and see that those with defective eyesight have seats where they can easily see all the work on the board. If the case requires, the parents should be notified and advised to consult an oculist. Some persons are afflicted with headaches which are caused by their eyes. The lenses of the eye are not perfect, and in adjusting the focus for reading and study the muscles are strained and become tired thus causing severe headaches. This can often be entirely relieved by using glasses that are rightly adjusted. In aggravated cases the services of a specialist should be secured.

Testing Eyesight and Hearing. — It is a good plan for teachers to test the eyesight and hearing of all pupils at the beginning of the term. The test cards can be obtained from almost any optician or oculist. A watch may be used to test the hearing. Simply testing to see who can hear the farthest will locate the ones that need the teacher's attention.

LIGHTING AND SEATING

Light. — The light of a schoolroom should come from one side of the room, at most from two sides, and then from the left side and back of the room. If the light comes

from two opposite sides it causes cross shadows, and these are hard on the eyes. If the light comes from the right side, it causes the shadow of the right hand to fall in the light of the writer.

The teacher in the rural school cannot rebuild the house, but she can manipulate the shades so that the light will be the best possible under the conditions. It is better that the light should come in near the ceiling, so that it may be scattered and reflected by it all over the room. It would be ideal to have light come in from above as out of doors. This cannot always be done, but shades can be so arranged as to admit the light at the top of the window. This can be accomplished either by placing two shades near the middle of the window, one rolling up and the other down, or a shade adjuster may be had which allows the shade and fixture to be moved up and down at will, thus locating the curtain at any point desired. Shades are not merely for ornament, but should serve their purpose of regulating the light. School boards do not always think of them as necessities, but teachers should be able to show their importance and insist that they be furnished.

The blackboards should be of a black or dark green color, and the writing should be large and distinct, so that it will not cause pupils to strain their eyes to read it.

Seating. — In seating pupils care should be exercised to find seats suited to the several sizes in the school. There are two faults quite prevalent; the first, where the seat is too high for the child, and the second, where seat and desk are too far apart. The little fellows in too many schools must sit with their feet resting on nothing. This is tiresome and injurious to the flexible bones of the growing child. The feet should rest easily on the floor. When a pupil can sit back in his seat with a right angle



AN ADJUSTABLE DESK

And one that may be moved to any part of the room

formed at his knee and his feet flat on the floor, his seat is of the right height.

The desk top should be near enough the pupil so that he will not have to lean far forward in order to write. It is preferable to have seat and desk too near together rather than to have them too far apart. If too near together, there will be trouble in getting in and out; but if too far apart, the pupils will have to assume an improper position in writing and study. With a good adjustable

desk all these ills can be remedied and each pupil be given a seat and desk suited to his size. Until then teachers should make the best use possible of the material at hand.

VENTILATION

Need of a Revival for Pure Air. — It is a sad fact, nevertheless true, that our teachers know a great deal more about ventilation than they put into practice. When a teacher talks about modern methods of heating and ventilation, while her room is reeking with foul air and not a window is open, you wonder what good her information is doing her or her pupils. What we need is a revival for pure air. We need to realize that fresh air is nature's free food and that we ought to have plenty of it.

Here are some facts upon which the theory and need of ventilation are based:

1. Warm air rises and cold air settles.
2. In breathing we consume oxygen and exhale added amounts of carbon dioxide.
3. Oxygen is necessary for life, but exhaled air contains less and less of oxygen and more and more of matter poisonous to the human system.
4. In order to keep air pure as it should be for breathing it is necessary to introduce about thirty cubic feet of fresh air each minute for each individual and to extract an equal amount.
5. Very moist air is oppressive and excessively dry air is irritating to the throat and lungs.
6. Ordinarily, when the temperature is raised nineteen degrees, the moisture is decreased one-half
7. Many of the impurities of air are heavier than air and gradually settle to the floor.

Our knowledge of disease germs and the conclusions

from the above principles should convince us of the necessity of schoolroom ventilation.

Effects of Impure Air. — It has been estimated by the State Board of Health of New York that forty per cent of all deaths are caused directly or indirectly by impure air. A great waste is caused in our rural schools from the effects of impure air. Pupils become dull and stupid, or restless and irritable, all because the air of the room is foul. When pupils are sleepy or things begin to drag, or some complain of headaches, it is time to think about ventilation. Throw open the windows and have the pupils march until the impure air has been replaced by fresh air.

Warm air is not necessarily impure, nor on the other hand is cold air always pure. If there has been no interchange during the interval, the air left overnight in a schoolroom will be just as impure in the morning, though cold, as it was the night before. The janitor should be instructed to open the doors and windows while sweeping, that there may be a complete change of air.

Schoolroom Experiences. — Methinks I hear the voice of some lone teacher in a forlorn old schoolhouse say, "I cannot warm my schoolhouse with all doors and windows closed as tight as I can get them. There are cracks in the door and it does not touch the threshold by an inch. The windows also do not fit, and the wind and cold pour in. How am I to ventilate?" In reply: Your problem is one of heating and not of ventilation. The "friendly cracks" will furnish all of the fresh air you need, especially on a windy day; on a still day you will need to follow directions given to others.

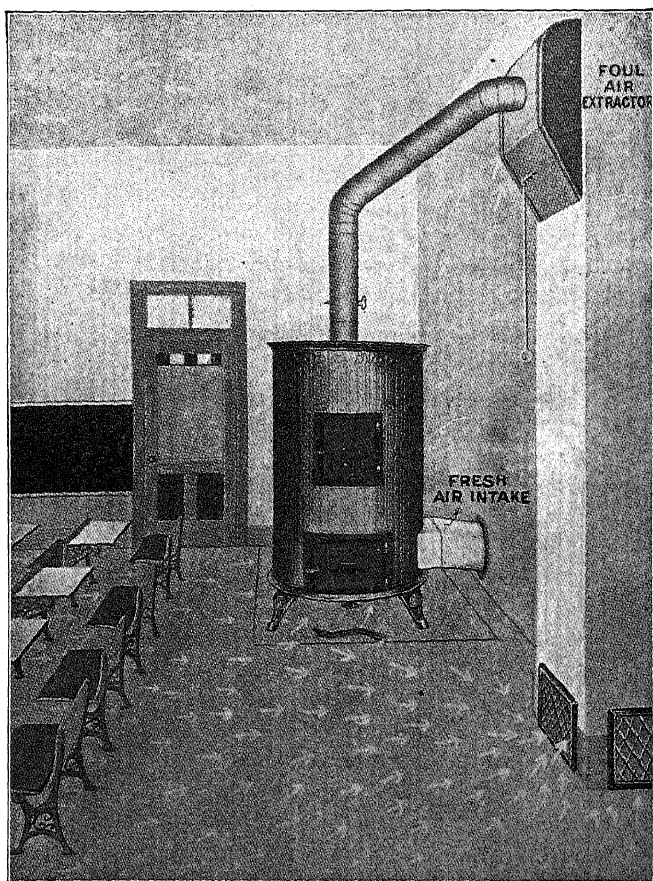
Another says, "My schoolroom is tight enough, but there is no way provided to ventilate it." This is the condition of most schoolhouses, but it is not a valid reason for teachers giving no attention to the subject.

If the door is located so that it does not cause a draft on any one, it can be left a little ajar. Through this crack a current of air will enter at the lower part and another will go out from the upper part. A small wooden wedge will hold the door in place.

Ventilation by Use of Windows. — The most common method of ventilating under above conditions is by means of an open window or two. The problem is to provide an inlet and an outlet of air, and cause no draft on pupils or teacher. Sometimes this can be done by opening a window from the top on the leeward side, and one or more at the bottom on the other side. Another way is by use of boards. In the first place, when only a little air is needed, fit a board about six inches wide under the lower sash. This allows a flow of air between the upper and lower sashes. Where more air is wanted, fit a board about ten or twelve inches wide on the inside of the casing, then raise the lower sash about eight or ten inches. This will allow a flow of air into the room under the window but the board will give it an upward turn. By the use of boards in this way you can prevent a draft on the pupils. Whatever method is used, cold air must not be allowed to strike the pupils or fall upon their heads.

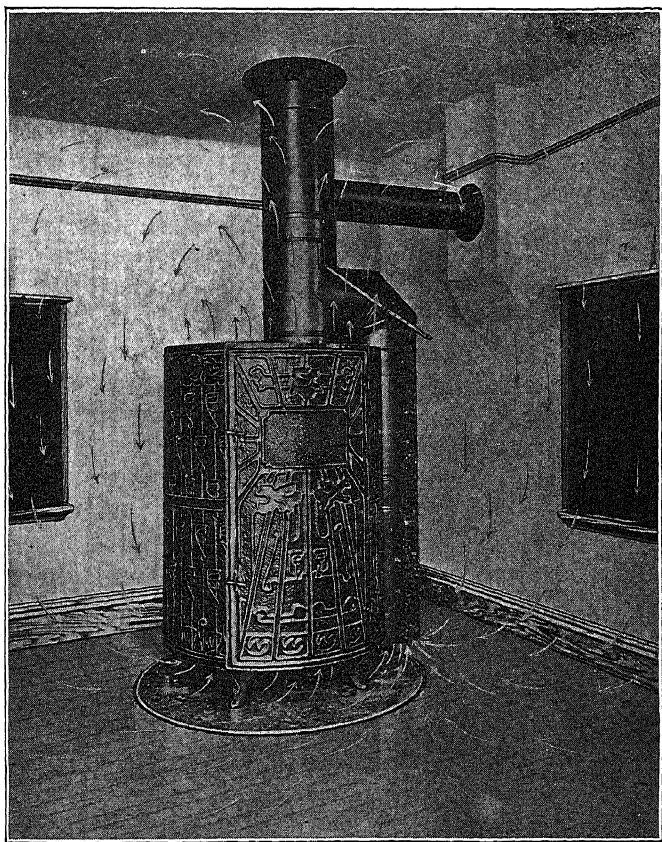
Any of these ways are imperfect, for in cold weather fresh air should be warmed before it enters the school-room. Then again, it is impossible by these methods to get fresh air into all parts of the room.

School boards generally place the stove in the middle of the room, so that it will radiate heat into all parts of the house. As many a boy or girl knows, this furnishes a good hiding place from the eyes of the teacher and makes seats back of the stove at a premium; also, those near the stove roast, while those sitting in the far corners of the room freeze.



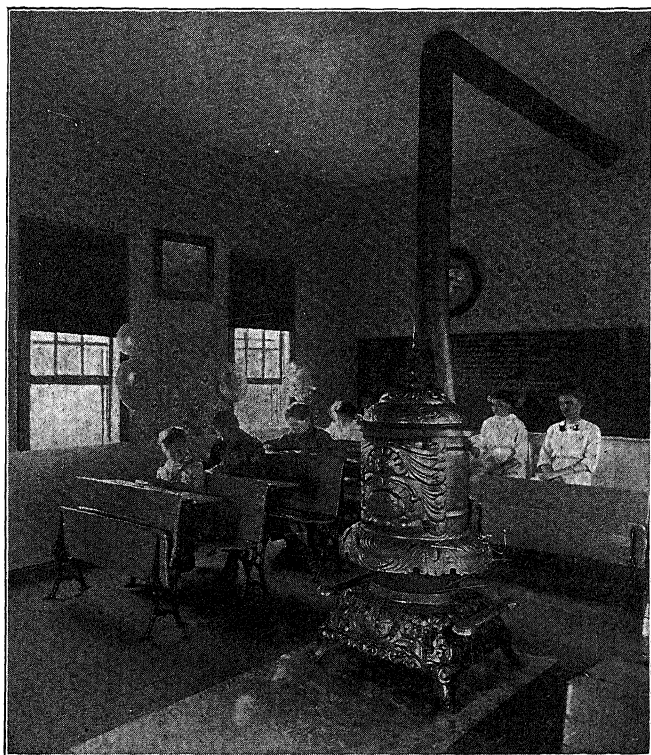
ONE TYPE OF SANITARY FURNACE
(The Smith System)

A Modern System of Ventilation. — There are now on the market two rational methods of heating and ventilating a one-room building by the use of a stove.



ANOTHER MODERN SYSTEM
(Waterman-Waterbury)

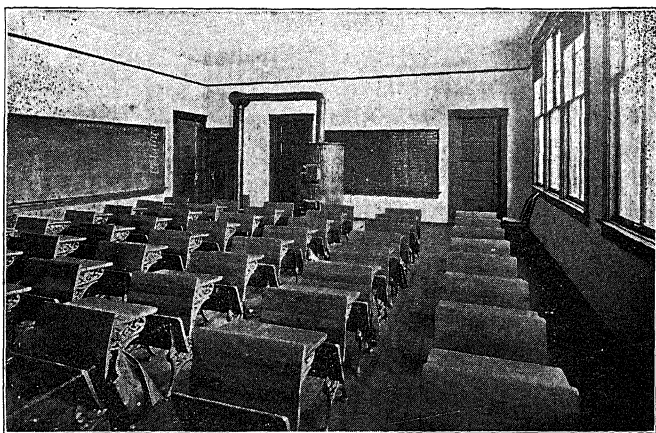
Both these systems use a stove enclosed in a jacket. Fresh air is admitted into this jacket from outside, is heated, rises and spreads over the ceiling. A large foul air pipe placed near the stove comes to within three or



A TYPICAL STOVE-HEATED, UNVENTILATED SCHOOLROOM
Note the waste of floor space

four inches of the floor, extends upward and passes out through the ceiling and roof. The stove pipe passes within this foul air duct up to a point on a level with the opening in the flue, thus heating the air in the foul air pipe. In the other case the chimney, beginning at the floor, is used as the conduit for the foul air.

The air in the flue is heated by the smoke and gases



A SCHOOLROOM HEATED AND VENTILATED BY ONE OF THE MODERN SYSTEMS

Note the conservation of floor space

from the stove, and causes a suction of air through the registers. This takes air from the floor, and the heated air next to the ceiling gradually cools and settles.

In this way the whole room is evenly heated, while fresh air is coming in all the time and foul air is going out. Those sitting near the stove are no warmer than those in the far corner. This stove may be set in the corner of the room out of the way.

There is a water pan within the jacket. The evaporation of this water moistens the air of the room. In most schoolrooms the atmosphere is too dry. An open vessel of water placed on the stove will replenish the moisture of the room.

Under all circumstances it takes more fuel to heat a room when there is cold air coming into it than when everything is closed up tight. Yet it is almost impossible to heat a room uniformly without a circulation of air, and

entirely impossible to ventilate without it. While it may cost a trifle more for fuel (the companies claim not, saying that because of the circulation of air, which gives a uniform heat in the room, it does not take as much coal as where some of the house must be overheated to warm the corners of the room), yet every schoolhouse should be heated by some such system. The whole cost of installing one of these plants is about one hundred twenty dollars.

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Chapter V

THE TEACHER — HIS QUALIFICATIONS

PHYSICAL EQUIPMENT

Io Physical Disability. — The person that stands from day to day before the boys and girls of a school should be physically whole. However much we sympathize with them and desire to assist them, persons who are maimed or deformed are not the persons for school teachers. Children are so inclined to imitate that they often assume the walk, posture or special peculiarity of the person who stands before them as teacher. Then too, the impressions of childhood are so lasting that we should try to place before them perfect models. The school boards that desire to see the teacher before making a contract are not to be blamed. Other things being equal, those boards that choose the best looking teacher, should not be criticised too severely. “A sound mind in a sound body” is not more to be desired in any other walk of life than in that of a teacher.

Importance of Good Health. -- The young man or woman who starts out in life to be a teacher needs a good constitution. While there is an impression among a good many rural people that school teaching is not hard work, yet many break down and have to leave on account of their ill health. To walk a mile and one-half. or two miles; to eat a cold dinner; to act as teacher and janitor

and build fires on winter mornings when the wind blows and the snow flies; to remain housed up in a close room five days in the week with thirty or more pupils breathing impure air — to withstand these drains upon the vital forces requires a good constitution. One may say that these do not always come to the teacher. Though they may not come all at once, yet most teachers who have taught long in rural districts have encountered these strains upon their health, and some even worse than these.

The Need of Strong Nerves. — The work of the schoolroom is a constant drain upon the nervous system. In regard to the control of a schoolroom the words of Holy Writ are true, “Not by might, nor by power, but by my spirit.” Control is accomplished more by spiritual than by physical forces. The old-time teacher tried to govern by physical force, but the government never was good. Fear was predominant in this scheme and the child was not led to self-control. No better use can be made of the influence of mind over mind than in school government, but this consumes nerve force, and the teacher who is to succeed must start with a generous supply.

Good Disposition. — In order to succeed, the teacher should be kindly disposed toward children. The noise and worry of the school work upon one’s nerves and are inclined to make a person irritable. If a person is in sympathy with the children and can enter into their joys and sports, he need not grow old and cross, but may live young in life and spirit.

The grace that the teacher needs in good measure should not be the kind that is content with anything that happens, but the kind that suffers long and is willing still to suffer that things may come to pass just right. Children are not as thoughtful as grown people would have them, and many things occur in the schoolroom that

“cannot be cured but must be endured.” The children are not the only ones who draw upon the teacher’s patience. Often patrons and even school boards are not in the closest touch and sympathy with the work of the teacher. They do not see things from his viewpoint and sometimes hinder rather than help the work. All this calls for patience. Happy is the teacher who has “learned to labor and to wait.”

MENTAL EQUIPMENT

Thorough Knowledge of Common Branches. — The teacher may be deficient in many things that are desirable and yet be quite successful; but the district school teacher, who undertakes to teach without a good knowledge of the common branches, is sure to prove more or less of a failure. He undertakes to teach these very subjects, but how can he *teach* that which he himself does not know? Then, first of all educational preparations for teaching a rural school, is a thorough knowledge of those branches that have become fundamental in our educational system. Some young men undertake to teach before they can write a legible hand or express their thoughts in passable English. Some young women undertake to teach before they have mastered the principles of arithmetic, or have comprehended the simple logic of events in the history of the United States. These people fail, but it may not be checked up against them. They may receive their pay as teachers when by right they should pay tuition for the privilege of practicing on innocent children. In these cases the would-be teachers learn more than their pupils.

Knowledge of Advanced Studies. — No one can teach all that he knows. He must have some store in reserve.

The logic of much of United States history dates back into English history. Many of the principles of arithmetic can be explained only through a knowledge of algebra or geometry. Many things that come up in grammar and composition require a knowledge of rhetoric to make them plain. Hence the teacher of common branches needs at least some knowledge of advanced studies. The high schools are demanding college trained teachers, and the day is not far distant when the district schools will demand teachers with at least a high school education.

Professional Training. - Not only should a teacher know the subjects to be taught, but he should also give some thought and study to learning how to teach these subjects. There is an impression among those outside the craft that any one who knows a subject knows how to teach it. The architect knows a house, knows how it should be built, but he lacks skill in using the tools to build the house. He still needs to know how to use the plane and saw that he may fit rafter to rafter, and make joints that will pass the inspection of the master builder.

In the same manner, it is true in the profession of teaching that the teacher needs to know the "how" as well as the "what." A good many teachers have acquired this skill by years of practice and experience in the school-room, but this is an expensive process and its evil results fall upon the pupils of such schools. It is unfair that a teacher should learn his trade by practicing upon those whom he is paid to teach. We do not think of hiring an unskilled man to build a house, for it would be too expensive. Nor would we hire the architect to do the carpenter work. Each has his work, and in business we recognize this and give to each man his place. We should recognize this in teaching, also, and require some training in the theory and art of teaching. The city schools

generally are requiring this training either in a normal school or through experience in the schoolroom. It is time for the rural schools to raise their standard, also.

Practice Teaching. — Along with the theory of teaching, should go practice teaching under skilled supervisors. Possibly observation of model recitations, conducted by a trained teacher, should precede any teaching by the pupil. Such work followed by a recitation on the lesson presented, calling attention to how the teacher had illustrated in actual work the theory that had previously been studied, will save the young teacher from committing many blunders and save the pupils from the evil effect of practice teaching.

Training for Rural Schools. — What is given above is more or less general, and is needful whether the person is to teach in the city or in the country. But there is a certain training which is desirable for teachers of rural schools to fit them for the special needs of the country.

While the normal schools offer an extended course in professional subjects, the rural schools may be willing at the present to content themselves with less than a complete course in psychology, philosophy of education, history of education, school law, school management and methods of teaching. Yet a knowledge of some of these subjects seems almost necessary to any degree of success. Before going into the schoolroom a person should have some idea of how to conduct a recitation; how to make out a program and follow it; how to govern a room full of children with as little friction as possible; how to start a class in reading, in numbers, etc. All of this presupposes some knowledge of the psychology of child life. The elements of these subjects may be comprehended by young people who have attained the age when their judgment is supposed to be mature enough to allow them

to teach school, and states are raising the requirements along these lines from year to year. It will probably be a long time before we have reached the requirement of the German schools, where every teacher must have normal school training.

The following is the course which is offered in the secondary department of the Kansas State Normal School to students who expect to go into the rural schools to teach. It is very similar to the course now given in over one hundred high schools in the state of Kansas. This course, completed, carries with it a one-year state certificate entitling the holder to teach one year in elementary schools.

COURSE OF STUDY, KANSAS NORMAL HIGH SCHOOL

| | |
|------------------------------|-----------------|
| English..... | 3 units |
| Algebra..... | 1 " |
| Geometry..... | 1 " |
| Arithmetic..... | $\frac{1}{2}$ " |
| History..... | 1 " |
| Civics..... | $\frac{1}{2}$ " |
| Physiology..... | $\frac{1}{2}$ " |
| Agriculture..... | 2 " |
| Physics..... | 1 " |
| Geography..... | 1 " |
| Psychology..... | $\frac{1}{2}$ " |
| Rural School Management..... | $\frac{1}{2}$ " |
| Manual Training..... | } 2 " |
| Domestic Science..... | |
| Drawing and Hand Work..... | |
| Music..... | $\frac{1}{2}$ " |

Explanation: A unit means a year's work, five recitations per week.

It might be well to say in regard to some of these subjects that they have special applications to practical life. For example, the course in physiology pertains to rural health problems, the hygiene of kitchen and barn, be-

sides the general laws of health. The course in physics deals with practical problems of the farm and home. Agriculture includes nature study, agronomy, farm management, etc. Rural school management is the study of school management applied especially to rural schools. Manual training and domestic science are both special courses designed for country teachers, and treat of farm and farm home subjects. The boys in manual training design and make models for farm gates, moulds for cement posts, plans for barns, etc. The girls study farm cooking, serving of country dinners, economy of the woman's work on the farm, etc. The drawing is elementary, such as will prepare for teaching in a mixed school; the hand work consists of seat work, paper cutting, mat weaving, basketry, and raffia work.

The course in the normal college includes advanced work along these lines, taking up rural problems and county supervision, and a course in chemistry applied to the kitchen and the farm. Teachers completing such courses as these will be well prepared for rural school work.

Knowledge of Rural Life. — The teacher who is going into a rural district should know more than the city girl who went into ecstasies over her uncle's "hand-painted barn." It is a good thing for the women teachers to know how to make bread, and something of the chemistry of the process; how to make a dress and fit it; how to milk a cow and make the butter, in short, how to do the housework of a country home. They will thus be more in sympathy with rural people and rural conditions. It would not be a hindrance if a man teacher knew how to farm, raise corn and hogs, cattle and horses. If he had walked between the handles of a plow, the fact would not make him worth less to the boys of the school. By the

way, it would be a good thing if every boy could come in contact with a good man teacher somewhere in his school life. It is to be deplored that the men are deserting the district schools. Kansas had about 47% of male teachers in 1870, but in 1908-1909 only about 19% of the teachers were men. Another trouble with the rural schools is that we have been trying to pattern after the city schools. What we need are schools suited to the rural conditions, taught by teachers who know and are in sympathy with rural conditions.

ATTENTION TO BUSINESS DETAILS

Knowledge of Business. — One of the first things a prospective teacher is called upon to do is to sign a contract. Many young people just beginning teaching have little conception of its importance and character. It is the first they have ever signed or with which they have had anything to do. What it means they have not thought nor do they know what is in it, except that it gives them a school. If every contract were carefully read before it was signed, there would be less misunderstanding and trouble afterwards. The teachers' contract contains twenty or more specifications, and the law provides a severe penalty for its violation.

But a contract is only one of many things of a business nature a teacher should know. The business man has complained that the boys and girls from our schools do not know much about practical business. They learn what there is in the books, but if they are given some simple problem outside they are puzzled. It is not much wonder that this is true when we realize how little the teachers know about actual business. Even the men in the teaching profession are seldom recognized in business

circles. Every teacher should be sufficiently conversant with the common business transactions of the community to understand them and to apply the principles of the book to them. Also a teacher should be able to give problems of a practical nature illustrating and applying the business of the neighborhood.

Making Application. — (1) *By Letter.* When the teacher is applying for a school away from his home county, it often becomes necessary to write a letter of application. This should be done with great care. First, he should choose, if possible, business paper and envelope to match; he should use pen and ink and not a pencil; the paper should be folded correctly so that it will fill the envelope neatly (the way to fold depends on the kind of paper used); the address on the envelope should be in a plain, neat hand and end near the lower right-hand corner. The mechanics of the letter, punctuation, orthography, paragraphing, margining, etc. should be faultless. The parts of the letter, the superscription, the body and the subscription should be so arranged that the letter will present a neat appearance. In the body of the letter the very best English at the command of the writer should be used; not only English that is grammatically correct, but such as expresses the thought in a pleasing way. The author lent his aid in electing a young lady to a position as teacher of English in a high school over several other applicants because of the pleasing style of her letter.

Usually the body of the letter should contain three paragraphs, the first, the formal application, beginning, however, with some introductory remark as to source of information of vacancy; the second, the teacher's educational qualifications and experience; the third, his references to persons who know of his education, experience and moral character. A fourth paragraph may be added,

if the applicant desires to assure the board of his willingness to spare no pains and efforts to make the school a success, or to express his confidence in his ability to teach and govern the school with the hearty coöperation of the board.

(2) *In Person.* It is always better, if possible, to make the application in person. The board wants to see the individual whom it is to place in charge of its school; and the teacher should desire to see the board for whom he is to work. It is as much to the teacher's interest to see and become acquainted with the board and the neighborhood, as it is to the board's advantage to get an opportunity to estimate the teacher's worth by his appearance. Teachers must know that there are some schools which they do not want, that there are some schools in which they would make a failure, perhaps; that, when they find conditions in a locality uncongenial to them, they should move on to the next district.

When making application in person, the teacher should present as good an appearance as possible. This does not mean that he should wear expensive or gaudy clothing, but that he should be neat and clean. He needs to be able to present his case, not boastingly, but in clear and confident terms. It will not be considered egotism on his part if he tell of his educational qualifications, his experience as a teacher, and what he is confident he can do for the school. This is what the board wants to know, and, if he does not tell these things himself, it may not find them out in time to decide in his favor.

If the application is to be made to one individual, as the superintendent, it simplifies the matter, and the teacher can usually talk more openly and freely, knowing that a superintendent is more in sympathy with him and his ideals. If the employing board consist of several

members, it is usually necessary to see each one; but it is well to remember that often one man is *the member* of the board, and as he votes the board decides. To act legally the members meet and act as a board and not as individuals.

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Chapter VI

THE TEACHER — HIS PERSONALITY

ONE teacher may step into a room, and immediately every pupil is quiet and orderly; another may call for order, ring the bell, and even rebuke and punish, yet disorder is everywhere. To one teacher the pupils are respectful, and to another they are disrespectful. Upon one they will play pranks, set a tack on his chair, turn his watch forward, or hide his hat; upon another no one would think of playing a trick, but on the other hand, every one is anxious and willing to assist him in every way possible.

Personality: What it is. — The above conditions may be explained by saying that it is the personality of the teacher which makes the difference. Personality, that indefinable atmosphere which surrounds a person and commands respect and obedience, is almost synonymous with individuality or personal influence. We say of one person that he has a strong personality, and of another that he has a weak personality. One commands respect and exerts a strong influence, it may be for good or evil; the other commands little respect and his influence is confined to a small circle of friends and acquaintances.

One person by stately form and beautiful appearance commands respect at first sight. Boys especially admire persons of strong and robust stature. Physical perfection is their ideal, and they are willing to offer homage and

submission at its shrine. But some of these persons who at first command our respect by their very presence, after a while lose our confidence. We learn that they are not brave and courageous as we supposed at first, but, although physically able, are cowards, — perhaps both physical and moral cowards. Their inner selves do not measure up to their physical selves. Their wishes and demands are disregarded and they are not able to compel obedience and respect. Observers have expected the soul to be as large and as beautiful as the body, but they were disappointed.

On the other hand, the appearance of others is so disappointing and unprepossessing that at first we are repelled by them and think that we can never have any respect for such persons. However, when we become acquainted with them, we find their mental acumen so keen and their ability to assist us in our thinking so great, that we forget their physical defects and pay our homage to them as the ancients did to Psyche, the goddess of mind.

In a certain village, there lived a woman, with whom the writer is well acquainted, who could not command much respect by her physical presence, for she had a poor weak body; nor was her mental ability great. Yet her soul was so large and so good that every one who knew her respected her, and she was a power for good in that community.

William E. Gladstone, Prime Minister of England, combined all of these qualities. During his long and busy career as a statesman, his physical manhood was never neglected, but he was able, in what might have been expected to be his declining years, to chop wood like a hardy woodman. But it was his brilliant genius combined with his unswerving regard for right and justice

which made him the first man in all England and gained for him the title of the "Grand Old Man."

Personality is made up of physical appearance, mental acumen and soul greatness. Each of these has its influence upon those with whom we come in contact, and each should be considered in the study of this subject.

THE DEVELOPMENT OF A STRONG PERSONALITY

The question of interest to every person and especially to the one who expects to become a teacher is this, "Is my personality a fixed quantity or may I expand and improve it?" A good many are inclined to think that it is unchangeable. But if the question be put thus, "Can I maintain and improve my physical, mental and moral condition?" the answer is apparent to all. A few suggestions will be given which may help persons desirous of possessing a strong and influential personality.

The Maintenance of Physical Vigor. — In order that a person may exert his best influence, it is necessary that he maintain his health at the very best possible level. If a teacher is all bent over on account of pain in his chest, or if he has a throbbing headache from loss of sleep, he cannot exert the influence that he would otherwise, if he were buoyant with health and vigor. Thus, it becomes a question of how to maintain vigor and energy and at the same time do the work of the school.

First, find a good boarding place. This advice will often be hard to follow, and in some places it is almost impossible. But the teacher should inquire into this matter before the contract is signed. In some districts all want to board the teacher, in others no one wants that privilege, and in still others, if the teacher boards at a certain place, he incurs the enmity of some family of the district. Con-

ditions may be such that he cannot get a suitable boarding place in that district, and in this case he had better look elsewhere for a school. When it is advised to get a good boarding place, it is not suggested that one be overnice about a place. If a person is fastidious, he had better not go to the country to teach school. But he should get as good a boarding place as he can, a place where he likes the cooking, a place where the family is congenial, — where he can have time to himself and will not be expected to entertain the other members of the household, nor be entertained by them all the time that he is at home. The teacher should have a room to himself if possible, and this is more imperative if the family is large. In many places this will be impossible, and he will have to become one of the family and put up with the accommodations which the neighborhood affords. One had better walk two miles and have a good home when there, than to board next to the schoolhouse and have accommodations that are repugnant to his tastes.

The teacher needs plenty of mind and nerve rest — sleep. A good boarding place will not be the place where they have supper at nine and begin the preparation for breakfast at four or five in the morning. Then too, there are the parties and dances that may tempt the teacher to spend strength and nervous force that should be conserved for use in the schoolroom. Very, very few teachers can go to dances and parties, and teach a school properly. They come at a time when a teacher should be in bed asleep. This is not intended to mean that a teacher should never go out at night while he is teaching school. There are occasions when the teacher should be a leader in the social events of the neighborhood, but those events should not be mere dances and parties in the common acceptance of the terms. Then again, there

is the teacher who thinks he must work late at night or he will not get through with his next day's duties. It is true that a teacher should prepare his lessons for the next day, but he must so apportion his time that he shall be bright and fresh for the next day's work. Freshness of spirit and vigor of mind are as indispensable as well planned lessons. *Find time to sleep.*

The teacher that builds up and maintains his health and vigor will have to find time for exercise each day, exercise in the open air. Of course, if the walk to and from the schoolhouse is long, it may suffice; but some exercise, not so much for the exercise itself as for the interest that it elicits, is better. Playing a game such as tennis, basket ball or croquet for an hour will give sufficient exercise, and at the same time will add pleasurable employment for the mind. If one enjoys caring for chickens or feeding and grooming horses, he will find suitable exercise for each day. Let no one think that he has not time for exercise; he has not time to omit it.

Mental Improvement. — It is only when the old cells of the body are broken down and thrown off and new ones are supplied that physical vigor and vivacity are maintained. So it is with the mind. If it does out the same instruction from day to day and from year to year, it becomes dull and tired. It needs vigorous exercise. It needs to have its mental fibers quickened and energized by the rapid flow of red corpuscles bearing the life-giving oxygen. The mind that is dull will not of its own account command respect. Its possessor, if he deserves and commands respect at all, must gain it from some other source. The question comes again, "How shall I maintain and increase mental vigor?" The answer is almost apparent, viz; give the mind food and exercise. To the new teacher the lessons of the school may furnish sufficient mental

work for the first year; but to the experienced teacher who has gone over the work several times, it gives no mental exercise worth mentioning and he must do something else or he will get into a rut. He should be reading some good book, something not exactly along the line of his school work, that will cause him to think. It may be a book on advanced history, or psychology; it may be philosophy or literature; it may be a professional book, history of education, philosophy of education or methods. As the body needs exercise different from the work of the day, so the mind needs to make new flights into other realms and view other scenes. In short, keep the mind fresh by learning something new each day.

Moral Improvement. — The teacher who thinks that he can live a loose, inconsistent life out of school and maintain his moral standing before his school, deceives himself but not his pupils, for they will soon read his moral standing. The teacher that is morally weak loses his influence with his school. Pupils, as well as people in general, respect the person who has moral courage, who has moral principle and is willing to stand by it. A teacher once stopped men from betting on a school game of ball; they heeded him simply because he was in the right and they knew it; otherwise they would have laughed him to scorn. Though these men were in the habit of gambling at every game, they gave back the money and looked quietly on with the other spectators.

It is moral greatness more than physical prowess or mental acuteness that determines the teacher's personality. This is not a veneer that may be put on as we put on our Sunday clothes, but it is real moral greatness. It comes from moral thinking and moral living. He cannot be morally great unless he is thinking good, pure thoughts, for as Miss Brownlee, formerly of the La Grange School,

Toledo, Ohio, has said, "Thoughts are things." The fountain must be pure or the stream will not be pure. Thoughts tend to work themselves out through the muscular organism. Thoughts become deeds. "Out of the abundance of the heart the mouth speaketh," expresses the same truth. People expect the teacher to do just about right. Although they may do very bad things themselves, they will complain to the county superintendent if the teacher steps just a little from the path of rectitude. Public opinion has set a very high standard for the teacher, and it is right that it should, for the person who teaches children should live a consistent life. To the credit of the profession, it can be truly said that very few teachers disgrace their calling by immoral lives.

That we can maintain and improve our personality it is easy to conclude. As we improve our physical condition, as we grow mentally and morally, we improve our personality. As we grow greater in being, we strengthen that which gives us power with men. The young teacher ought not to expect to have as great a personal influence as he will have in days to come, and the teacher of years of experience will not be far wrong if he thinks the same.

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Chapter VII

THE FIRST DAY

PREPARATION FOR THE FIRST DAY

WHAT shall be the work of the first day, and just how and when shall each thing be done? are questions that should not be left until time for the work to begin but should be answered in detail beforehand. The young teacher especially must give careful thought to the details of this day's work. A good beginning is of great importance, as its impressions will last and will help to make the work of the remainder of the school easier or more difficult as the case may be.

Inspection of House and Grounds. — There are certain things that should be inspected before the first day; in fact, all the plans for this day must be made in advance, and it is well to know what can and ought to be done. Of course nothing can be accomplished until the contract is made and signed; but as soon as this has been done, or at least a week or two before school is to begin, the teacher should visit the schoolhouse and inspect the house and grounds, the outbuildings and well, if there be one. During this inspection, note should be made of the conditions of the floor, walls, windows, and outbuildings as to cleanliness; also as to whether repairs are needed. The result of this visit should be brought to the attention of the board, and courteous but insistent request made that

the school premises be put in suitable condition for school. Sometimes the weeds in the school yard are so high and thick as seriously to impede the progress of the school and at the same time to give the school a bad name. While all these things are important, yet a teacher may be unreasonable in his requests. As a rule, boards are willing to clean the house, grounds and outbuildings and make reasonable improvements, providing the matter is brought to their attention in the right way. Teachers should remember that school officers are usually busy men, and also, that they get no compensation for the time and work they do in connection with the office of school directors. The teacher should bring these things to the notice of the board early so they will have plenty of time to get this work done. Sometimes it is almost impossible to get any one to do work of the kind needed, for every one is busy; in this case a little patience is necessary. This does not mean that the teacher will cease efforts before the school premises are put in shape for school.

Some one may ask, "Will the teacher be justified in closing school until the board has had this work completed?" Yes, the teacher might be justified, but it would not be good policy on the part of the teacher to do such a thing. The teacher had better interest the large boys and girls in the project and take a Friday afternoon and clean the house in this way, rather than live in an unclean house or stop the school. Resort to either of these methods will not often be necessary.

The teacher needs the register for the names of the pupils of last year's school and such other information as it may contain, and he also needs the classification report in order to be familiar with the classification of the school. The teacher should take these with him and should study the names so that they will not be unfam-

miliar to him when he meets the pupils for the first time. From the classification report the teacher can outline the work for each class for the first day and the lessons to be assigned. If the program of the former teacher can be found, it will be of service in making a program for the first day, or it may be advantageous to use it without any change.

METHODS OF PROCEDURE FOR THE FIRST DAY

1. *Be the first at the schoolhouse in the morning.* This may be quite early, for the pupils in a rural community are usually excited about school the first day and anxious to see the new teacher or to get there first to have the choice of seats. There are other reasons for being there early on the first day which are best known to the boys of the neighborhood. If the teacher is not there before the pupils, some plans may be laid which are not to the teacher's advantage; at least, the teacher is on the safe side, if he is at the schoolhouse when the first pupils come.

2. *Assign seats.* Greet pupils kindly as they enter the schoolroom, learn their names, and assign them seats. *Assign* has been said designedly, for it must be understood from the beginning that the teacher has this right. If the teacher prefers, the pupils may be allowed to select their seats for the time being; but it must be with the distinct understanding that the teacher reserves the right to change them whenever there seems to be a need for such change. It may be best to talk over the matter of seats with each pupil, if there is opportunity. The teacher should not be dictatorial, and assign seats merely to show authority. If a pupil has a good reason why he wants to sit in a certain place, it may be the best policy to let him sit there. But often the reason for sitting in a

certain seat will not bear inspection and is not for the best interests of the school or the pupil. The teacher may have some plan of seating the room which the choosing of seats will entirely overthrow. In this case the thing is to ask for coöperation in carrying out this plan; this may settle all difficulties. Usually, the desire to select seats has some element of disorder in it. The pupils want to sit together that they may have a good time, or boys want to sit in the rear seats so that they will be a long way from the teacher. Here they hope to have more opportunities for whispering without the teacher's notice.

From what has been said, it will be seen that the matter of seating may sometimes be quite a serious problem. Understand that here, as elsewhere, no definite rule can be laid down for the teacher to follow. Only a few of the conditions that may arise can be suggested, and the teacher will have to do his own thinking and make his own judgments as to the best way to meet those difficulties that confront him. The teacher who undertakes to use undigested book methods, or even methods learned at a normal school, will fail. The good teacher *adapts* methods; he does not adopt them.

3. *Call school promptly at nine o'clock.* Keep the time which the neighborhood generally keeps. If they all keep sun time, all right, it will do for the school; but whatever time the teacher keeps, let it be accurate time and let him follow it rigidly.

4. *Open school with appropriate exercises.* Singing, reading of a passage of Scripture and prayer, or the repeating of the Lord's Prayer is a good form of opening exercises; the best according to the individual notion of many. But in some places the opposition to Scripture reading and prayer may be so strong that the teacher

will want to use some other form of general exercises. In this case singing, quotations, current events, the reading of a good book, instructions in morals and other special features which the teacher may wish to introduce may be brought in at this time and in a way take the place of what was suggested above. The opening exercises have a purpose to fulfill, viz., the unifying of the minds of the children, — “the bringing in of their wandering minds and placing them” upon their lessons. It takes a little time to get ready for work, to get the mind off the outside attractions, or distractions as the case may be. For this purpose, there is nothing better than music, for “Music hath charms to soothe the savage breast.”

5. *Assign lessons.* The teacher will have outlined lessons for each class, using the course of study and classification as a basis. Some of these lessons he may think best to write upon the board while he is waiting for time to call school. This will save time and trouble in doing it after school has been called. These first-day lessons may be something of a review, but they will not be a turning of the whole school back to the beginning of the book.

Assign new lessons as your judgment dictates. Do not expect pupils to recite as well on the first day of school as when they left off the work. It will take them a few days to adjust themselves to school work again. It is seldom that students should go back to the first of the book. A few days of review will often fit them to go on from where they left off.

6. *Classify new pupils.* Now everybody has something to do, except the new pupils who have never attended this school before, and possibly the beginners. This is a good time to look after the new pupils and classify them temporarily. The best that can be done at this time is

to give an oral quiz to find out about what each one has done in school before coming to this district. Then classify them as your judgment suggests and try them out in class. It may take a day or two to find out just where each one belongs, but as soon as possible each one should be assigned to his proper class.

7. *Follow a program.* The teacher should have put up a program before the opening of school, either the last year's program or the one he has made for the day. He is now ready to follow this program and call classes according as they are suggested by it. If the little people are to recite first, they can then be given seat work to occupy their time while the other classes are reciting.

Follow the program as closely as possible; at least, dismiss the school for recesses and noon hour on time and give the full length of time.

Before school is closed, the teacher may make any announcements concerning changes in the program, methods of calling classes and passing out at close of periods, or any other regulation of the school.

8. *Close school promptly at four o'clock.* The work of the day may not all have been completed, yet if all have been busy from nine o'clock in the morning to four in the afternoon a day's work has been done and it is time to close school. Send the pupils home in good humor, if possible, feeling that they have done a day's work.

Method of Procedure without a Classification Report. — 1. *Make a program.* If the former teacher left no program, make one for your guidance for the first day, or until you know enough about the school so that you can make a permanent one.

2. *Assign lessons to older pupils.* After opening exercises, assign lessons to all pupils; to the older ones first. An easy way, and probably as good as any, is to

assign a lesson to all who think they belong in the fifth reader, a lesson to all in the fourth reader, to all in the third reader, and so on down to the chart class.

3. *Examine, classify and assign lessons to younger pupils.* Call the primary pupils for recitation, examination, and classification. Of course this is not to be a formal examination nor a rigid classification, but you can learn about as well what a child can do in this way as in any other. You will want to take their names and send them to their seats with some seat work to do. Do not expect five- and six-year-olds to study lessons like older pupils.

Call the first reader class, examine, and classify them. Assign the next lesson and seat work.

Call the second reader class, examine, classify, and assign work; and so on through all the classes and during all the day. Each class as it is called can bring the books for the next lesson.

Summary. — The object the teacher should have in view is to set every one to work as soon as possible after opening exercises and to keep him busy all the day. Make the first day a full day of work. As a rule, rural schools have short terms, and parents are glad to have every day count.

The young teacher will do well to assimilate these plans and follow them quite closely. The object to be obtained by using these suggestions is to keep every one employed while the school is being organized. One of the secrets of school management is to keep every one busy at some useful school work. Do this and many of the other things will take care of themselves.

To the experienced teacher it may be said, that it is not necessary to follow these suggestions to the letter in order to make a good start on the first day; but if teachers

have been wasting time in getting organized, it will be well to heed some of the suggestions offered here, so that this day shall count with every other day as a day of work.

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Chapter VIII

THE DAILY PROGRAM

THAT there is a great waste in the daily work of our schools is apparent to any one who has investigated this subject. One needs but to visit our rural schools and observe the number of minutes spent by pupils doing nothing; or inquire of young people whether they could have done their regular work just as well as they did, and in addition many other agreeable tasks, such as manual training, agriculture, etc., had these been set apart for them, providing the teacher knew how to get them accomplished, to be convinced of this fact.

It is not our intention, however, to outline what additional subjects might with profit, — or possibly I should say *must*, in the near future, be introduced into the program of the rural school; but, rather, to give some suggestions about the making of a daily program for an average country school, so that *some* of this waste may be eliminated.

There are three things for which a program should provide, viz., study, recitation, and recreation. The order in which these have been placed is the order of importance in the rural school; at any rate, allow them to stand in this order, for it is the study part of the program that needs emphasizing.

THE STUDY PROGRAM

In every store employing twenty or thirty clerks there is a definite understanding between the chief clerk and subordinate clerks, or between proprietor and clerks, where each one is to work and just what each one is to do. One man does not sell shoes, silks, and clothing, but each has his place and his work, which is known to himself and to the head of the establishment. It is necessary that there be system, or some would try to do more than they could do well and others would do comparatively nothing.

The teacher is to be at the head of an establishment of ten, twenty, or thirty workmen, and whether each one does his share depends upon the system with which he organizes this force of busy toilers.

Will some work while others play? Will some interfere with the work of others? This is the case in many schools, and it is hard to eliminate it altogether; but this waste of time can be reduced to the minimum by systematically organizing the forces. The storekeeper might say to his clerks, "I want you to *sell goods*," but rather he says to one, "Go into my store and sell shoes;" to another, "Go and sell dress goods," and to a third, "You may sell carpets." Each one has his place and each one has his work. So the systematic teacher plans for the work of each one, and knows what each one should do *each hour of the day*.

Not only should the teacher know what Harry should be doing *now*, but Harry should know what he should be doing and what his teacher expects him to be doing *now*. It should not be expected that young boys and girls so plan their work that at the end of the day they will come out without a loss of time. Advanced pupils may do this,

but the teacher should do the planning for the little children at least. Our thought concisely stated is this: Every teacher should make a study program as well as a recitation program.

There was a time when the teacher had no regular program, but had to stop to think what class he would call next. After studying for a few seconds he might say, "I guess I will hear the 'A' class read to-day." But that day has passed and now every teacher has some kind of recitation program and follows it more or less closely, but not all teachers have a *study* program. This part of the day's work is left to the discretion of the pupils and, in the rural schools, the study part of the day's program is of great importance. With so many classes, the recitation periods must necessarily be very short, and, if the study periods are not well occupied, the work of the day will be indifferently or poorly done. If the rural teacher wishes to make his school a success, he must emphasize study. The progress of the pupils depends largely upon the amount of study they do. The study program simply systematizes this work for them.

Study Periods. — There is a difference of opinion as to when the lessons should be studied. Following custom, the study period would immediately precede the recitation; but there are many reasons why it should follow the lesson. Among them are the following:

1. If study is begun right after the recitation, pupils will go into the study of the lesson with the zeal and enthusiasm of the recitation.

2. If work is begun immediately after the lesson is assigned, the children will know just what to do. They will not have to ask about the lesson.

3. The lesson to be learned for the next day will have to be more thoroughly studied and more carefully stored

away in the memory than the lesson that is learned to be recited at the next period.

4. It is an advantage to the pupil who has to be out a day. While he will not be prepared on to-day's lessons, he will have studied the lessons for the day he was absent; he will get something of to-day's lessons from the recitations, and will be able to prepare his lessons for the next day. In a way, he has covered the ground and no serious break has been caused by this one day's absence.

On the other hand, it seems that it is asking too much of those just learning to study to require them to prepare their lessons the day before they are to recite them. Second-grade pupils should begin to work in this way, as they will be required to do in the higher grades, but it should not be the regular practice.

When to assign the lessons is a question that should receive consideration. It is not so important whether the lesson be assigned at the beginning of the recitation or at the close. The important thing is that the teacher take time to make a clear, definite assignment. If the teacher cannot bring himself to the point where he can close the recitation in time for a careful assignment at the end, he had better take time at the beginning of the recitation to make the assignment. Here again the little people should be excepted. Often the teacher will need to assign the work for them just before they do it. In fact, in the beginning, the teacher will need to show them what to do and how to do it and leave them to go on with the work.

ARRANGEMENT OF CLASSES

Waves of Fatigue. — In making a program, it is worth while to take into account the waves of fatigue. By several experiments it has been found that the minds of

children are brighter and better able to accomplish their tasks during certain periods of the day than at others. The best time of the school is from about 9:15 to 10:30 or eleven o'clock. Between eleven o'clock and the close of the morning session occurs the lowest depression of the wave. This is relieved by the noon recess, but it does not reach as high a point of effectiveness as in the earlier part of the day, nor does it reach as low a depression in the afternoon as in the morning session.

One noticeable thing which these experiments show is that after an intermission of free play the wave rises. After the noon hour and after each recess, pupils are able to do better and more accurate work.

The practical teaching of these experiments is that the more difficult subjects should come during the more favorable times of the day. Arithmetic, which is a difficult subject for the upper grades, should be placed early in the day. If all of the arithmetic classes are postponed until after the first recess, as is often the case, some of them will come during the very poorest part of the day. Reading is probably the most difficult subject for beginners and may come first for them. Arithmetic followed by reading, grammar followed by geography and history is probably a good order of subjects. It has been found that some subjects may take almost any place on the program, but others suffer if they do not have favorable places; for example, reading, except in the case of beginners, may come almost any time in the day without appreciable loss, while such subjects as arithmetic and grammar lose much if they are not given good places on the day's schedule.

Saving Time. — In a rural school where there is a demand for so many classes, the saving of time is a factor in accomplishing the work outlined for the day. If in

the moving of classes, or by combining two or more classes the teacher can save ten or fifteen minutes, this time can be used for some other recitation. The inexperienced teacher sees the demand for so many classes that the time is divided into small bits, and thus no recitation is worth much. Twenty classes are about as many as one teacher should undertake to handle; but conditions often seem to force the teacher to have a greater number than this. Superintendents who have visited a good many rural schools and have given this subject quite a little study, think that under no circumstances should the number of classes ever exceed twenty-four or twenty-six. In order that a teacher be able to conduct such a number of classes in one day and at the same time benefit those who are to recite, it is necessary that not a moment of time be lost; and often the teacher will need to use every device known to the craft to get the number down to its proper limit and do justice to the individuals of the school. A few devices for saving time and reducing the number of classes are suggested below:

1. Two or even three small classes in reading may be called at the same time, and those not reciting may be studying the next lesson at the recitation seat.

2. Two classes may be moved at the same time, using the same set of signals for both; one returning to their seats and the others coming to the recitation bench. "Rise! Pass! Be seated!" will answer for signals for both classes.

3. Two arithmetic or two grammar classes may be called at the same time, and one may be given written work at the board while the other is given oral work.

4. The teacher can manage to give a written lesson each day to some class, passing this from class to class so that each class will have about one written lesson a week.

This lesson can be so planned that it will not take much time from the other parts of the program.

5. Lessening the number of classes is another way of saving time. Two classes may be combined, or "alternated" as it is called in many courses of study. For example, the fourth and fifth grades both use the fourth reader, and thus may both read, one year, the fourth year's work, and the next year, the fifth year's work. This kind of combination can be made in history, geography, language and sixth- and seventh-grade reading. If there is an agreement in the state or county as to when certain work will be alternated, as, that the fourth year's work in reading will be begun in the odd years, there will be no conflict when pupils go from one school to another, and the plan will work quite well.

6. If the number of classes demanded is about to exceed the maximum, it is better to have some classes recite twice a week and others the other three days. This plan should be followed with the advanced classes only.

7. Some teachers arrange a program from which certain classes will be omitted each day of the week. For example, geography classes will not recite on Mondays, and certain arithmetic classes will not recite on Tuesdays, and so forth, making four recitations a week instead of five.

8. Sometimes older pupils preparing for the county examination desire to review all the subjects in the curriculum and would greatly increase the number of classes. This can be avoided to a great extent by having them do intensive study on a few subjects and then drop them and take up something else. For example, if a student wants to review reading, orthography and geography, let him spend a month each on reading and orthography and two months on geography. This will be better than for him to carry all three of these subjects for four months,

| RECITATIONS | | | STUDY | | | | | | | |
|-------------|---------|-------------------------------|----------------|-----------------|----------------|----------------|----------------------|----------------------|-------------|--|
| TIME | CLASSES | GRADE I | GRADE II | GRADE III | GRADE IV | GRADE V | GRADE VII | GRADE VIII | | |
| 1:00 | 5 | SINGING. All Grades | | | | | | | | |
| 1:05 | 15 | Reading I and II | ..... | ..... | Reading | Geography | Geography | Reading or Geography | Agriculture | |
| 1:20 | 10 | Reading III | Write on Board | ..... | ..... | Geography | Geography | Geography | Civics | |
| 1:30 | 10 | Geography IV | Write on Board | ..... | Reading | ..... | Geography | Grammar | Civics | |
| 1:40 | 15 | Geography 3 Language 2 V | Build Words | Build Words | Reading | Geography | ..... | Grammar | Civics | |
| 1:55 | 15 | Grammar VII | Build Words | Build Words | Basket Weaving | Basket Weaving | Geography | ..... | Civics | |
| 2:10 | 20 | Agriculture | Play | Play | Basket Weaving | Basket Weaving | Sewing or Manual Tr. | Grammar | ..... |  |
| 2:30 | 15 | RECESS. All Grades | | | | | | | | |
| 2:45 | 15 | History VII and VIII | Paper Folding | Write Sentences | Write Language | Language | Sewing or Manual Tr. | History | Classics | |
| 3:00 | 10 | Language I | ..... | Write Sentences | Write Language | Language | Manual Tr | History | Classics | |
| 3:10 | 10 | Language II and III | Write | ..... | ..... | Language | Language | History | Classics | |
| 3:20 | 10 | Language IV | Write | Language | Language | ..... | Language | History | Classics | |
| 3:30 | 15 | Classics 2 Civics 3 VIII | Dismissal | ..... | Language | Spelling | Spelling | Spelling | ..... |  |
| 3:45 | 10 | Spelling IV V and VII | ..... | Spelling | ..... | ..... | ..... | ..... | Classics | |
| 3:55 | 5 | CLOSING EXERCISES. All Grades | | | | | | | | |

making three recitations a day. One recitation a day will be all that is necessary to carry these three subjects for the four months, if these suggestions are followed.

It is to be understood that these devices are for the busy teacher with the crowded program. They are not better than the regular way of having each class do its own work and recite every day for five days in a week.

On pages 78 and 79 is given a program for a country school having seven grades, showing how the study and recitation programs may be combined.

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Chapter IX

THE RECITATION

THE recitation is the important event in the day's program. It is for this that teacher and pupils have prepared. It is the time for which all other exercises of the day lend their aid. It is then that the teacher and the pupils transact the business of the school. The pupil spreads before the teacher his store of treasures; the teacher tells him which to keep and sends him back to the storehouse for another supply, with instructions as to what to select and, perhaps, a few hints as to how to exhibit his store.

The Three Functions of the Recitation. — The Englishman places little stress upon the daily recitation, but emphasizes the examination as the opportunity for testing. The same is true of the German teacher. But we Americans think of the recitation as a place of *testing*, *teaching*, and *training*. Some teachers who have studied the subject little think the recitation is complete when they have tested the class and found out what the pupils know. This is only a small part of the opportunity of the recitation. It might be not a third of what ought to be done. Again, some will teach, teach, teach, or perhaps it better be said, talk, talk, talk, and never stop to find out whether they have taught anything or not. Talking is not necessarily teaching; it may be far from it. Most teachers talk too much. The teacher should talk less

and get his pupils to talk more. How does a teacher know what to say until he has found out what the pupil knows? Whatever the pupil knows about the lesson he should be allowed to tell. He may not be able to express himself in the best of language, but with some criticisms from pupils and a few corrections and suggestions from the teacher and with another effort he will improve. It is by drill, — going over again, correcting, improving, repeating — that the training, which makes usable the knowledge obtained, shall be secured.

Securing Attention. — Before the recitation can proceed with profit, the teacher must have the attention of the class. The practical question for the teacher to ask at this point is, “How can I secure and hold attention?” This is not an easy question to answer, for there are so many things that may come in to distract attention, or, it may be, there is so little to *attract* attention. In the first place, everything that will distract attention from the lesson should be removed, if possible. The desks should be cleared of all books, except those that may be for use in the recitation. If none are to be used, then the desks should be perfectly clear. All paper, pencils, knives, marbles, etc., should be out of sight and, perhaps, out of reach, and the class in a good position near the teacher. In the second place, there must be something to which to attend. The teacher may now be thought of as a caterer who is to prepare the banquet. If this meal is so prepared and served as to tempt the tastes and appetites of those who are to eat, there will be little trouble about getting them to attend. So if the lesson is properly assigned, if the pupils are well prepared for the lesson, there will be little trouble in getting attention.

Arousing Pupil's Interest. — But the following of the suggestions given above will not always secure attention,

for some minds will wander, because they are more interested in something else. Interest is catching. Let the teacher become intensely interested in the subject and in the boys and girls of the class. This will exert a great influence in getting the pupils interested. Interest begets attention, so when you have your class interested, you have them attending. It is equally true that attention begets interest, so that required attention is not out of place, but it in turn will lead to interest in the subject at hand.

These suggestions do not cover all the ground, nor suggest a remedy for all the cases that may arise. As has been said before, the conditions must be met and mastered. Inattention may be caused by one of many things. It may be the monotony of the teacher's voice, the lack of variety, the condition of the atmosphere of the room, lack of animation on the part of the teacher, etc. But, whatever it is, it must be overcome and attention must be secured; for we are not teaching unless the pupils are learning, and pupils are not learning unless they are giving attention.

The Recitation for the Whole Class. — The whole class should be giving attention, for the recitation is for the whole class. In general, the oral recitation is better than the written, because, when the pupil recites aloud, the class gets the benefit of his recitation. The pupils can then compare their information with that of the reciting pupil. If his knowledge is approved by the teacher, the rest of the class can correct theirs by this standard; on the other hand, if the pupil's recitation is disapproved by the teacher, the other members of the class may offer their information for the teacher's criticism. It is sometimes the custom for teachers to have one member of the class explain a problem while the other members are still

working their examples at the board. The objection to this practice is that the teacher and the one member are all that get the benefit of this explanation, while it should be for the whole class.

PURPOSES OF THE RECITATION

Superintendents who have visited extensively in our rural schools tell us that there is a great deal of purposeless teaching. The young teacher, who has not studied the subject, hears recitations because that is the way it was done when he went to school. It is not because he has any special end in view, and generally no end is reached. In this chapter the purposes of the recitation will be studied to see if there is any reason for conducting such an exercise.

1. To Find What the Pupil Knows. — In his book on "Method in Education," Mr. Roark gives as the first purpose of the recitation the following: "To find what the child knows and how he knows it." This seems to be important, for it is not enough that a child can say in parrot fashion the words of the lesson. He may have a good verbal memory and may have memorized the words of the book and yet know comparatively nothing of the thought. It may be that it is not his own work, perhaps some one has helped him or has worked his problem for him, and he does not understand it at all. If it is written work, his seatmate may have earned the credit that is due. He may be visual-minded and remember the words as they appear on the page, and when the picture is gone all that he knows about the subject fades also. Thus it is important not only that the teacher find out what a pupil knows but also how he has learned it and how he holds it in mind.

2. To Find What the Pupil does not Know. — The second purpose that Mr. Roark gives is "To find out what he does not know and why he does not know it." The resourceful pupil will find numerous reasons why he does not know his lesson, but the teacher is interested in the valid ones only. It may be asked, Was the pupil prepared for this lesson? Or it may be the lesson was too long or perhaps too short. Did the pupil try to get the lesson, or were conditions of the room such that he could not study? Perhaps conditions at his home are not favorable to study and school work. He may be motor-minded and unless he may move his lips while studying or in some way accompany study with muscular activity he cannot learn. It may be that he is auditory-minded and learns those things he hears better than those things he reads. All these things interest the teacher and he must consider them in directing the work of the pupil. It is not mere curiosity that should lead the teacher to this inquiry, but a purpose and a determination to remove the obstacle and correct the evils.

3. To Correct Pupils' Mistakes. — This object must not be lost sight of, for few pupils get a correct idea of a subject from their own study, so that they are able to express it clearly. The teacher must correct these ideas or have other pupils do it.

4. To Supplement Pupils' Knowledge. — The teacher should know more of a subject than is contained in the textbook, and when the class have exhausted their resources, the teacher may come in with additional knowledge and information that makes the thought clearer and enlivens the recitation.

5. To Lead Pupils to Correct Expression. — As a rule pupils should be required to recite in complete sentences. A good plan to follow is to require the pupil to stand and

to recite in full statements. Do not accept a word or phrase for the full statement of the fact. There may be one exception to this rule, viz., in number work. When the teacher is working for rapid results he cannot wait for full statements. The teacher should keep a watchful eye on the English used in the recitation. Give pupils the idea early in their school life that their knowledge is for use, the English in the arithmetic class, the arithmetic in the geography class, etc. As far as possible, good pure English should be demanded in all classes. Mr. McKeever in his book, "The Psychologic Method in Teaching," extends the idea of expression beyond that of mere verbal utterances. The sawing of a board, the painting of a picture, the making of a dress or the baking of a loaf of bread are all means of expression, and are valuable in the markets of the world. The newer idea of education would have these recognized and cultivated as well as the use of good English.

6. To Prepare for the Next Lesson. — The recitation is a time in which to prepare for the next recitation, or rather to prepare for the study period. There is the preparation of the ground before the planting of the seed. To see that the pupils are prepared for the next lesson is one object of the recitation which the teacher should be careful not to forget.

7. To Study Pupils. — There is no place that the teacher comes nearer to his pupils than in the recitation, and thus it becomes a place to study each pupil, — to learn his likes and dislikes, his peculiarities and inclinations. It furnishes an opportunity, also, to develop character. Honesty of purpose, upright dealing, true manliness, and many of the other virtues may be cultivated in the recitation by the teacher who is a lover of truth and has high ideals of living and acting. Each subject has its moral

lesson. History has its heroes, arithmetic its exactness and precision, and literature its world of truths.

Conclusion. — Each author who treats of school management gives a list of six or eight purposes of the recitation more or less similar to the above, but the young teacher just beginning the work of teaching need not worry if he cannot keep in mind all these purposes for each recitation. He needs to know them and must seek to accomplish them. But he will realize that there is more to do in the recitation than simply to “hear the lesson.” This he should do, but he should also seek to make it a place of intense interest in the lesson at hand, a place of pleasure, not a place of torment. If he will correct the pupils’ mistakes in a kindly spirit and lead them back into the right road; if he will connect the work of the schoolroom so closely with the homes and their life, that each pupil will feel that he is getting something worth while and something he can use; if he will somehow and at sometime inspire his pupils with an intense desire to know more and be more, the professional fraternity will forgive his pedagogical sins, though he should fail to keep all the rules of the recitation. He must never forget, however, that the recitation is a place for the teacher to teach and the learner to learn. These things can be accomplished only by the teacher who knows and who grows, who has a purpose in life and a laudable ambition to succeed, even though it takes work, work, work to accomplish this end.

MECHANICS OF THE RECITATION

In order to attain the high ideals set forth in the purposes of the recitation, it will be necessary to use every device, every method that will assist. There are certain arrangements which may be made, certain regulations

to be observed, that will greatly aid in the successful progress of the recitation.

Order of the Room. — Before beginning the recitation the teacher should see that the room is in order, i. e., see that all questions have been answered that should be answered at this time; that each one is at his task for this period; that the room is properly heated and ventilated; and that such other mechanical duties as may call the attention of the teacher or the class shall have been performed.

Movement of Classes.— There should be a definite understanding as to how a class shall move, i. e., whether pupils shall pass straight forward from where they stand after rising from their seats, or whether they shall all move to the back of the room and come up one of the side aisles; what shall be each one's place in the class, or whether the class shall recite from their regular seats. In a rural school, unless there are single seats and the pupils are seated according to grades, the class should move to a recitation seat near the teacher. Close range adds efficiency in the recitation. In this case it is quite important to have signals for the movement of the classes. The following are perhaps as good as any: "Third reader class, stand! pass! be seated!" or "Stand! pass to board! erase!" Some accomplish this by counting, "One, two, three," etc. Some use a bell, but the noise is distracting. However, the plan is not so important as the way it is used. The common fault is to give the signals so fast that it is impossible for the pupils to obey them. This breeds disorder and thwarts the very purpose for which the signals are used. Some will be coming to the class while others are just rising or perhaps looking for a book in the desk; some are being seated while others are coming to the recitation seat, and thus all order, the very

thing for which the teacher is striving, is lost. Give the first signal and allow plenty of time for it to be obeyed before giving the second. See also that pupils are attempting to comply with the signals. In other words, give plenty of time in which to execute the requirements of the signals and require prompt obedience. A little persistency along this line will soon bring good order in the movement of the classes. These suggestions will apply equally well to dismissal at noon and recess.

The larger the number of pupils, the more need there will be of regulations in handling them, and vice versa. As suggested in the chapter on the Daily Program, if the school is large and time is precious, one class may come to the recitation while the pupils who have just recited are passing to their seats. This gives pupils an opportunity for some foolishness while meeting in the aisles; but, when the teacher has good control of the school, he can use this order of passing.

Position of Teacher. — It is quite important that the teacher assume a dignified and graceful position before the class. No slouchy or uncouth posture is at all excusable. The teacher may sit or stand as the occasion seems to demand. Inquiry of a number of Normal students seems to indicate their preference for the standing attitude. When the teacher is on his feet, he can see better what is going on in the room. It is a good plan for the teacher to move around the room at times to see what otherwise would be hidden from his sight.

Position of Pupil. — Some of what has been said about the teacher is applicable to the pupil, — at least, that he is more alive when on his feet. This also may be emphasized, viz., that as a rule he should hold his book in his left hand; that almost without exception the pupil should stand while reciting, for the other members of

the class can hear better, and he needs to think while standing. A graceful position, without the aid of seats or other support is hard for the teacher to secure from all pupils. They have not been "trained from their youth up," and have contracted habits of careless posture; or it may be that bashfulness is the cause of an awkward position. The bashful child should not be treated the same as the careless child; he should be shown and encouraged, but not scolded. The teacher's opportunity for this kind of training is with the little folks before they have become selfconscious and bashful. The teacher of little children has an opportunity of training them in graceful habits, that should not be overlooked.

No Textbook in the Hands of the Instructor. — While there may be times and conditions which will justify the teacher in having a textbook in hand, yet there are so many other advantages and arguments for not having the textbook in hand that it is a good rule to adopt. Consult your own experience as a pupil and see which teacher did the better work, the one that was tied to the book or the one that was free from it. Let the teacher test himself to see which lesson he teaches the better, — the one in which he is confined to the book, or the one in which he knows the subject and does not need the book.

Assignment. — On the part of the teacher there should be careful preparation for the assignment of the lesson. Whether the lesson shall be the next five pages or the next page, depends upon several things. It may be that the next lesson in arithmetic should be twenty examples, or it may be that it ought to be three, depending very much upon the class, upon the problems and other conditions, such as weather, other lessons, social attractions, etc. These conditions the teacher should know before at-

tempting to assign the lesson. In other words, the teacher should know that the class is ready for the lesson and that there will be opportunity to study it. If the pupils are not ready to proceed, they should review until such time that they will be able to proceed step by step from the known to the unknown. This advice is not for the teacher who always wants to turn the classes back to the first of the book at the beginning of every term. This is generally done by teachers who have a false conceit that they are going to do more thorough work than has been done by the previous teacher.

The assignment should be clear and definite. Pupils should not be allowed to go away from the class not knowing just what preparation is needed for the next recitation. They should know it so clearly that they will know when they have their lessons learned.

Too long a lesson ties the hands of the teacher; too short a lesson leads to idleness on the part of the pupils. The following incident from a superintendent of many years' experience well illustrates the latter point. A teacher had assigned a class 20 words for their next spelling lesson. The superintendent asked if he might take the book. This being granted, he pronounced the 20 words to the class and only one was misspelled. Of course the superintendent plainly demonstrated to that teacher that she had assigned no work for the class commensurate with their ability. They would either not study, or they would go over something which they already knew and dawdle away their time, — in either case acquiring wasteful habits.

In the assignment, the teacher links the old lesson with the new, and explains such parts as the class will not be able to get for themselves. Some days, when the new lesson consists of almost wholly new material, the teacher

will need to take most of the period in assigning the new lesson. It may be well to study the lesson over with the pupils. In a beginning reading class, the new words will need development; in a geography class the unusual words will need to be pronounced, and perhaps, to be explained. A class in history may not be able to see the connection between what they have already had and that which is to follow. Every class should be so grounded in the assignment of the lesson that by their own efforts they can prepare for a creditable recitation.

When once the lesson is assigned, both teacher and pupils should be prepared on it for the next day. The pupil should be held to strict account for just what has been assigned, and should have an opportunity to tell what he has learned about it. The teacher is not to recite the lesson now but the pupil. Here is where a good many teachers fail; they either recite the lesson for the pupil or accept a poorly learned lesson as one well learned. Accept no recitation as perfect that is not a clear, accurate expression of the thought of the lesson. Clear, accurate thinking is an object worth attaining.

Chapter X

THE RECITATION (Continued)

DEVICES OF THE RECITATION

It was said in the previous chapter that interest begets attention. Now it may be profitable to know some ways of creating interest. Here, as in all school work, the teacher must use his own individuality — be himself. A teacher's personality will do more to arouse and hold interest than any or all the devices or rules that may be given in this book. Yet, if the teacher can adapt some of these devices, and make them his own, they will assist in making his school more interesting. Only a few can be suggested; he must find some more of his own contriving.

1. The Teacher Being Taught. — The teacher may assume the position of not knowing and of being taught by the pupils.

2. Pupils the Questioners. — Notice that pupils are to give questions such as the teacher would ask on the lesson. Pupils will have questions about some phases of almost every lesson, but to ask the questions as the teacher would ask them is another thing.

3. Contests. — Debates and contests have been found interesting in a class in history. Debate some such question as, "Which did more for his country, Lincoln or Washington?" Sometimes a contest in geography, spelling or arithmetic will arouse great interest in the subject under discussion.

4. **Variety.** — The three points above mentioned might be summed up by saying, — have variety and spice in your recitations. Spring a pleasing surprise upon the class. Tell an interesting story that will illustrate some point in the lesson; a good laugh is healthy sauce for a class of young people. The story should not be for the story alone, but for the sake of the recitation and should illustrate some point in the lesson.

METHODS OF THE RECITATION

There are several ways in which a lesson may be conducted. Following are a few suggestions in regard to classroom methods which may be found helpful.

1. **Oral and Written.** — In every school there should be both oral and written recitations. Of the two, the oral work calls for the higher type of thinking. The pupil must be alert, ready, and must frame his composition on the spur of the moment. He does not have time to go back and correct, nor to study long as to how he will form his sentences. The oral recitation tends more to cultivate extemporaneous speaking, rather than careful and exact expression of thought.

The written recitation gives opportunity for more accurate statements and better language in which to express one's thoughts. A pupil needs practice in both. Many of our rural teachers are inclined to neglect written work, while city teachers often overdo it. Many boys and girls from the rural schools come to the County Diploma or Teachers' examination without ability to express themselves clearly on paper or to answer a question completely. This comes from two evils, viz., the want of written work in school, and the lack of the habitual requirement of accuracy — the need of giving the answer in full, complete

sentences. Too many teachers are willing to accept a word or two instead of a complete statement of the truth required.

2. Object Method. — In order to be successful, the teacher of beginners must know and use the object method. The order in teaching is the object, the thought, the word. When teaching a new subject, the object itself furnishes the best illustration, next the picture of the object, then a drawing and lastly a description. This is but saying in other words that the concrete should precede the abstract. The child probably does very much of its first thinking by the use of object symbols.

The importance of having objects for use in our teaching is often illustrated in our own experiences. The writer might give a description of Pike's Peak, how it looks like a huge pile of rock some builder has unloaded for a mammoth building. He might go on into the details of the description, yet how surprised the reader would be when he sees it with his own eyes. How different it will appear from what he imagined. Notice the use of this method in the chapters on primary methods.

3. The Topic Method. — It is a good practice to have pupils recite by topics. The teacher announces the topic and the pupil arises and discusses the subject to the best of his ability without any other suggestion from the teacher or pupils. It requires independence and a better grasp of the subject than when required to answer a few questions on the topic. This method can be used to advantage in history, physiology, civil government, geography, etc.

4. The Lecture Method. — This method has little place in the rural schools. It may be used in a college or university where the professor has given a subject special study and has original material not in the textbook. This

he gives to his pupils in the form of lectures and requires it back in the test or examination. From the very nature of the case, our rural teachers must learn to use the textbooks and be content to use the methods that may be applied to them.

5. The Question Method. — The teacher can afford to make of himself a big question mark and learn how and where to place it. One of the great teachers of the world used this method so exclusively and so effectively that he gave his name to a method of questioning. The teacher can covet no more desirable art than to be a good questioner. There is, perhaps, no better way of teaching than by asking questions in a proper manner.

There are a few directions a student may learn that will be of great advantage to him in mastering the art of framing questions. In the first place, the teacher should be original in the question asked, and not tied to the questions of the book. These questions may be a guide to him in arranging others, but he will never be a good questioner until he frees himself from dependence upon the textbook.

In the next place, all questions should be clear and definite. They should call for something, and that thing should not be one of two or more things. For example, if the teacher asks what lake is on the boundary of New York State, he has not made himself clear, for there are several lakes that will answer these conditions. Again, if he say, "Give me the definition of a fraction," he suggests that there is only one kind of fraction, whereas there are several kinds and he has not signified which one he wants defined.

Then again, the questioner should endeavor to make his questions follow each other in logical order. The skillful questioner can begin where the pupil is and by a series of questions arranged consecutively and in logical order,

lead the pupil step by step from the known to the related unknown. This was Socrates' method. If the pupil thought that he knew more than he really did, by questions Socrates would lead him to see how very little he knew and how insignificant was his knowledge. If, on the other hand, his pupil lacked self-confidence, he would lead him from one step to another to realize that he knew a great deal.

Leading a student step by step to a clear and definite understanding of a subject by means of a series of logical questions is called the Socratic method of teaching.

When the teacher wants to find out what his pupils know about a certain subject he can best do this by a series of questions called testing questions. Here there is no place whatever for suggestive questions. Any suggestion of the answer defeats the very object for which the questions were asked. These should not be the questions that can be answered by yes or no; they should call for definite information gotten from textbook or elsewhere. When the instructor desires to teach certain truths or to lead pupils to see certain relations, often he can best accomplish this by a series of questions called instructional questions.

When it is a choice between telling, or asking a suggestive question, use the question. It is better to question a child into seeing a thing than it is to tell it to him.

In teaching, there is not much use for the direct or categorical question. We may ask a pupil whether he has studied his lesson or not, and he may answer by yes or no; but to ask, "Is Kansas bounded on the north by Nebraska?" is hardly worth the effort that it takes to ask it.

We are often warned against the use of elliptical questions, but it seems that we may use them sometimes for

variety. Questions are used to arouse pupils to earnest thinking and good expression, and any form of question that will do this, may be used with profit.

As a rule the question should be directed to the whole class, and then some one called on to answer it. If this plan is used to its fullest extent, every one in the class will be held responsible for the answer, and each one will be formulating the reply. If the individual who is called upon to answer the question has not a clear idea of the subject, the teacher may need to question him to lead him into a clearer understanding of the matter.

INDUCTION AND DEDUCTION

What we have given above under the caption of methods may be objected to as not worthy the name methods, being simply devices. However that may be, all will agree that there is an inductive and a deductive *method* of teaching and that they should be understood by all progressive teachers.

Induction. — When the mind proceeds from the particular to the general, it is called inductive reasoning or inductive thinking. This is best illustrated by some of the inductive sciences, as botany for example. Botanists have studied the life, habits, and structure of plants until they can tell us many interesting and useful facts or laws about them. They have learned from observation that if a plant has seed it has had a flower of some kind and belongs to the great series of flowering plants. If the leaves are parallel veined, we may look for certain other characteristics.

Again, we observe that this neighbor has died. We notice that old people become feeble and die, etc.; and finally we come to the conclusion that all men will die,

that "Man is mortal." This last statement is what is called the "general or universal."

Deduction. — We reached the above conclusion by a series of observations, and we call this process induction. But, if we should begin with this conclusion, "Man is mortal" and reason from it in the following way, e. g., "Man is mortal, John is a man, therefore John will die," — we are reasoning deductively. We are proceeding from the general to the particular.

Induction, then Deduction. — Both these methods have their place in teaching, but most educators think that induction is the more natural for the young student. The faculty of observation is active in early life, for the child is seeing, handling, tasting and hearing at every opportunity, and drawing his childish conclusions, some true and some not. He makes his deductions also, e. g., he thinks, "I can push a chair; this is a chair; therefore I can push this."

It is generally believed that, if a subject can be presented inductively, this is the better method to follow. So, instead of learning the rules in arithmetic first and then working the examples and problems by the rule, examples and problems are worked, illustrations are given and finally the rule is formulated. In the study of the sciences the laboratory method and the inductive method are one and the same method. One goes into a laboratory and observes that heat expands iron, that other metals expand when heated, that water and mercury expand under the influence of heat; in fact, all things that he has found expand under the influences of heat. He thus comes to the conclusion or universal "All things expand when heated."

The Goal of the Recitation. — By this process of induction, going from the individual to the general, we reach

what Mr. Dutton in his "School Management" calls the "goal of instruction." He says that every recitation should have for its goal some universal truth. For example, a lesson in subtraction should lead up to the rule for subtraction; a lesson in percentage should lead to the rule for working examples in this case in percentage; a lesson in history should lead to some moral truth or patriotic sentiment.

Whatever may be the advantage of the inductive method, we are called upon sometimes to present subjects that cannot be taught inductively, and must use deduction. No one need be alarmed, for it is a good method. Doubtless, the mind often follows induction by deduction. Our conclusions derived from induction are often hastily reached and faulty, and we need to test them by deduction.

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Chapter XI

TEACHING PUPILS HOW TO STUDY

Meaning of Study. — By studying we mean the concentrating of the mind upon a certain subject. The degrees of studying in school may be expressed as follows: first, the simple thinking of a little child in connection with its seat work; second, gleaning thought from the printed page; third, judging; fourth, reasoning such as is required in solving difficult problems in arithmetic.

Importance. — The importance of learning to study can hardly be overestimated. When one has learned to study, he has acquired the means of obtaining an education; even more, he has a large part of his education already secured, for knowing how to study is a good part of an education.

The Old Plan and the New. — From an inquiry of classes in a normal school, it has been found that few, and many times none, have had any instruction whatever in the grades in the art of study. Teachers have not thought that there was any instruction to give about study, except to tell the pupils *to study*. Many of us in our childhood days, when we were in earnest about studying, knew of no other way than to repeat, and we were encouraged to repeat by being requested to read our lesson over five times, to study our spelling over ten times. This we used to do in the following way: b-a-ba-k-e-r-ker, baker; b-a-ba-k-e-r-ker, baker; b-a-ba-k-e-r-ker, baker, as fast as we

could make our tongues go, and with as little thought about how "baker" was spelled as possible. We could do this and think most of the time about something else, and this was the feature that commended itself to the average boy or girl. It is easy to see that there was no mind concentration in this process. Its value depended entirely on the law of repetition; but there are ways of learning and remembering things other than by repeating them, and some of them are more economical. In teaching pupils how to study, the plan should be comprehensive, suited in its devices to the various grades of the school. The little beginner should be started, for if he is ever to be a scholar he must learn to study. (Beginners are not however to study in the common acceptance of the term, and as they are often required to do.) The pupils learning to read ought to be getting the thought from the printed page, and so on throughout all the grades of the school.

STAGES IN THE ART OF STUDY

Teaching Beginners to Study. — As was said in the previous paragraph, first-year pupils should not be expected to do independent study, and even second-year pupils cannot do much studying, in the common acceptance of the term. The practice of many rural teachers of putting the book into the hands of first-year pupils, and expecting them to study is all wrong. Yet they should be doing something that contains the elements of study and which will lead them into the art of study. Let us illustrate. It is conceded by psychologists that muscular activity, especially that which is under the control of the will, builds nerve or brain power; hence the reason for manual training in the school curriculum, and hence the place for much of the busy work or seat work used by all

good primary teachers. The child who is placing two colored sticks in several positions, as, =, \backslash , +, \times , etc., is doing some elementary study or thinking. When he is sewing the outline of a leaf or pricking the holes in a card to be sewed, he is doing appropriate study for a child that has just entered school and has never learned this work. In special schools for feeble-minded children, the first lesson is often some simple act, such as jumping over a stick. Something like this is thought to be sufficient at first, and by gradually making the requirement more difficult it is hoped to arouse the mind to activity.

Much of the beginner's first work is imitation of what the teacher has just done, but there is, or should be, *thought* in this imitation, and there will be, if it is properly presented by the teacher. For example, the children are learning to write the word "flower." The teacher slowly writes the word on the board while the children are watching every movement of the teacher's hand. The teacher calls attention to the form of the letter "f," — that its back is straight, that the upper part extends up farther than the "o" or "w," that the upper part is just like the "l," that the lower part extends down as far below the line as the upper part extends above the line. He will call attention to how to go from the "f" to the "l," from the "l" to the "o," etc. He will now hide the word or have pupils close their eyes and try to see the word; after this he will erase the word and have them try to write it. This process of teaching writing is a thoughtful process and requires study, as intricate and exacting as little children should be required to attempt.

The study of the first year should be something of what has been suggested above and should be almost wholly under the direction of the teacher. The seat work, the reading, the number work, in fact all the work of the school

should be *thoughtful* work. In teaching the first lesson in reading, the teacher will try to get thought expression from the pupil; this thought expressed he may use for the first sentence in the reading lesson. If the thought is the pupil's, there will be no trouble in getting correct expression in reading; but if the thought is not the pupil's own, he will get correct expression by leading questions which will suggest the thought. Thus, the very beginning of reading may be a thoughtful process. The thought is directed and brought out by the teacher and it is not customarily called study, but it is elementary study under the direction of the teacher. It is not the grade of study required to get the thought from the printed page, a thing which children of this age should not be expected to do without the help of the teacher.

Thought Getting. — If the kind of thought work suggested above is carried through the first year and continued in the second year, by the middle of the second year, pupils may be expected to do some thought gleaning for themselves. This will have to be stimulated by the teacher, for where there is so much effort required in learning to recognize and pronounce words, if the teacher is not careful, the energy will all be expended in this direction and none will be left for getting the meaning of what is read. Indeed, in many schools the whole effort of the pupil is expended in getting the words. This is true in regard to the higher grades also, and even in the seventh grade, pupils are not getting the thought from the reading lessons. To call the word correctly seems to be the height of the ambition of many reading classes. This ambition is encouraged by the practice of allowing the pupils to make all the corrections in the reading class, for, as a rule, they criticise only the miscalled words. This custom has its place, but it should not be the only and most important

criticism offered by class or teacher, nor should word calling be counted as reading. The calling of the words correctly is, no doubt, the first element, in process of time, in good reading; but in advanced reading, this part should be secondary, requiring little thought and effort. Thought getting and thought expressing should absorb most of the energy and effort. The reason why boys and girls have hard work to get lessons in such subjects as history and civil government, is that they have not learned to glean the thought from the reading lesson. This is where they should learn it first, and it should be a continuous process from the first day in school to the last classic that the school is expected to read. Much trouble in arithmetic comes from pupils not being thoughtful readers. Our boys and girls have not learned how to study because teachers have not taught them how to study, — they have not required thoughtful work in reading, the fundamental subject.

Judging. — In the study of history and classics the pupils should be encouraged to do thinking for themselves. Pupils are quite willing to take the opinions of the author or teacher for their opinions. Especially in regard to morality should they be encouraged to form judgments of their own. The teacher should not be too free to express his opinions. Let him hold them in reserve until the members of the class have expressed theirs. It is sometimes a good indication when a pupil differs from the opinion of the teacher. It shows, if it is not stubbornness merely, that he is doing some independent thinking. Current events furnish material for this kind of thinking.

Reasoning. — Analysis in grammar and analysis in arithmetic furnish about the best material that our common schools have for this higher form of study. Too many of our teachers allow analysis in grammar to degenerate

into diagramming in which there is no clear meaning, and neglect analysis in arithmetic altogether, so that our boys and girls get little training in this essential kind of study. In order to be good, clear thinkers, they must be able to take hold of a subject and analyze it, whether this be a speech of some legislator, or whether it be a business proposition. The foundation of this work should be laid by our common schools. A man should not be expected to get this training wholly from experience, for tuition is high in the school of experience.

Note that in all of the above suggestions there are problems of some nature to be solved. The little beginner has two sticks to place in a certain directed position. In the writing of the word *flower*, there are several small problems uniting in the larger problem of writing the word. When the child begins to read from the book, he has to find out what the book says and express it for the teacher and his fellow pupils. In literature or history, when the pupil is asked to form judgments regarding the character of Hamlet, Arnold or Washington he has a problem. In analysis of sentences in grammar or the solving of examples in arithmetic, the problem is very evident. The problem serves as the best incentive to study of any device yet found.

HINTS ON STUDYING

The Eye, The Hand, The Ear.—Of all the sense organs the eye is, perhaps, the most serviceable in conveying to us knowledge, both from books and from nature. Although our eyes sometimes deceive us, yet we believe in the old saying that “seeing is believing.” Children want to see, old people want to see, everybody wants to see, for every one learns much by seeing. Although one

learns by seeing, he is not satisfied with seeing alone; he wants to handle. On seeing something for the first time, a little child next wants to handle the new object, and grown people are much like children in this respect. Not everything about an object can be learned by the use of the eyes. Feeling and the muscular sense add to, and correct, the knowledge that comes through the eyes. An object may look heavy, but when lifted it is found to be light. Some retain that which they hear much longer than that which they read. It seems that sensations which come to them through the auditory channel are retained much more easily than knowledge gained from other sources.

From these facts it would seem that it is important to present knowledge through the three channels to the mind, viz., the eye, the hand, the ear. That which we see, handle, and hear we know more about and remember longer. The writing of a lesson impresses it upon the memory. The committing to memory of an outline or the learning of a lesson in spelling is often facilitated by writing the same. Drawing a map or an outline picture of an object appeals to both hand and eye. The teacher that is "handy" with chalk will find that it materially aids word pictures and he will soon be known as one who can "explain things." The oral element should not be neglected in recitation and study. In studying a lesson in reading, pupils should often be encouraged to read aloud to themselves, for thereby they are training the vocal organs and also the ear, two organs that must be trained to do good work in oral reading. It is sometimes good practice to read aloud a lesson in history, physiology, etc., for thus the ears are brought into use along with the eyes.

In general, the greater the number of the senses that can be brought to bear upon an object, the more knowledge will be acquired and the longer will it be retained.

Three Times Over. — Children are sometimes encouraged to study their lessons many times over, and this often becomes an ideal of perfect study, so that the child who has studied his lesson over “ten times,” has about reached the goal of perfection in study. But if this is given due consideration, it will be seen that “ten times” cannot be ideal, for the student would make slow progress if he were compelled to go over his lessons ten times. The ideal is *one* time. The advanced student should strive to get a lesson so well in once going over it that he will not need to go over it again. This will take concentration of thought and close application, such as is not expected of pupils in the grades. But they should not be led to think that they should go over a lesson many times in order to learn it. This is permissible only when the purpose is drill. When an artist is training the voice, or hand, or some other of the muscles of the body, it is necessary to repeat again and again, and here, also, thoughtful repetition is much more effectual than thoughtless repetition. Too frequently this “many times over” is merely thoughtless repetition.

Mr. Roark in his “Method in Education” suggests that a lesson should be learned in going over it three times. The first time it should be read as a whole. This can be done more or less hurriedly, aiming to get a general view of the lesson. The second time it should be studied very carefully, studying each paragraph separately and noting the particulars that come under this sub-topic. Most textbooks have the subjects of each paragraph in heavy-faced type; these furnish the sub-topics under which the student may arrange his knowledge of the lesson. In this second going over, the pupil is supposed to continue his study of the topic until he understands it and knows what is in this division of the lesson. Thus, para-

graph by paragraph, he goes over his lesson, picking the whole to pieces. It now only remains for him to put it together again. This he does in the third going over. This time he may simply look at the headings of each paragraph, thinking them back into the whole lesson. If it should happen that he has forgotten what is said in one of the paragraphs, he will have to read it over again, but as soon as its contents come to him, he will go on.

Concentration. — These suggestions can be followed only when thought is put into the study. Students sometimes find themselves reading along but thinking about something else. The thing to do under these circumstances is to go back to the place where his thinking ceased and begin over again. If the student will ask and answer for himself this question, it will be a great aid to him in getting on the track again, "What is the subject about which I am reading?" or in other words, "What is this author talking about?" Sometimes this should lead back to the general subject, and again to the subject of the paragraph. This question and its answer will often lend aid to an understanding of what an author means in a sentence that is difficult of interpretation.

All of the above is but another way of saying that study is a thoughtful process. It is study only when the mind attends, and the more intently the mind attends, the more of its energy that is focused upon the subject at hand, the more will be accomplished. The more the mind is concentrated upon the subject at hand, the more the mind is absorbed in the subject, or absorbs the subject, the higher the character of study becomes. It is wonderful what can be accomplished by a mind that concentrates itself upon a lesson to be learned, and wonderful how little time it takes to accomplish a great task. This kind of work is intense, absorbing; the worker becomes almost

oblivious of surroundings and for the time knows but one thing.

The person who can study in this way does not need the usual time in which to get a lesson. A lesson that it usually takes an hour to prepare, with this kind of study may be gotten in half the time. As a rule, pupils spend more time than is necessary in getting a lesson. A good deal of the time is spent in dawdling over the lesson while the mind is stupid and half awake. Every pupil who has tried it knows that he can get a lesson in half the usual time.

Such strenuous study cannot long be sustained. The mind tires and must have relaxation. A study of a different nature affords some relief, but exercise in the open air is the best restorer of mental energy. All who have graded large lists of examination papers know how fatiguing the work is, for the monotony of going over the same thing time after time induces listlessness and languor. The writer once had such a task before him and tried the following plan, which worked well. He worked as fast and diligently as he could for about an hour on a number of papers on one subject, arithmetic for example, and then left off grading for ten minutes and walked in the open air. Returning to the papers again, he worked as vigorously as possible, this time on grammar papers. By this plan he thought that he accomplished more in a day than where he stayed continuously at the work.

Motives in Study. — The above suggestions are more or less mechanical and may not appeal to the pupil; but if a motive for study can be presented to the child, if he can see why he is expected to study, or better, if he sees the end near at hand for which he is working, his efforts will be spontaneous, vigorous and worth while. If the little child is making a pretty card or mat

for her mother she will work with much more zest than if there is no end in view. The child who is learning to read so that he may read a story for himself or for another will find more interest in the reading lesson. Motivation is a subject to which the live teacher should give special study. A good reference is given at the end of the chapter.

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Chapter XII

PLAY AND PLAYGROUNDS

THE FUNCTION OF PLAY

MANY have thought, and some doubtless still think, that play is a sort of necessary evil. "Children will play and you cannot help it, but it would be much better if they did not," has been the opinion held by very many "grown-ups."

A little study will show the fallacy of this position. Play is an instinct given the child for its protection or good in some way. Some one has said that the only animals that can be trained are those animals that play while they are young. If this is true, then there must be some relation between play and development. Dr. Woods Hutchinson, in the *Contemporary Review* of September, 1903, says that the child plays through the five stages of development of the race, viz., the "root and grub," the "hunting," the "pastoral," the "agricultural," and the "commercial" stages. He thinks, when the little child wants to put everything he gets into his mouth, that he is passing through the root and grub stage — he is merely living through that prehistoric period when man lived on roots that he dug from the ground. When, a little later, he is hiding behind doors to jump out at papa or sister, he is passing through the hunting period of the race; and so on through the different periods, until

he wants to keep store, trade knives, and gather the products of many lands and keep them all in his pocket. Then he has reached the culmination of his race — the commercial stage. Whether or not this theory of Mr. Hutchinson's is correct, it suggests to us that the child is developed through play, and with this we, as teachers, are interested.

Development of the Body. — We have but to look about us to convince ourselves that play has a very important use in the developing of the child into manhood. Is it not the natural method of educating or training human beings for usefulness? The babe in the crib begins very early in life to throw out his hands and kick his feet, and the more vigorous this activity is the more pleased he seems. And all these throws of the hand are teaching him to control its movements and find the way to his mouth; and all these kicks of his little feet are making his legs strong enough to hold his weight and carry his unstable body whither his head directs. So it is not hard to believe that play develops the physical being, for it gives the child use of his hands and feet; it makes more acute his hearing, and sharpens his eyesight; it gives him suppleness of the whole body by bringing every joint and muscle into use and under his control.

Development of the Mind. — But play does more than develop his body; for, as Dr. Hutchinson says, "When the child plays it is not merely relaxing itself, getting an appetite, getting health; it is literally building and organizing its body, nay, its brain and mind." He also says, "Every sport worth the name develops not merely strength, endurance, and fleetness, but also alertness, quickness of repose, coolness, balance, and wariness, judgment that is both sound and swift." If there is a man running from first base to second and one from second

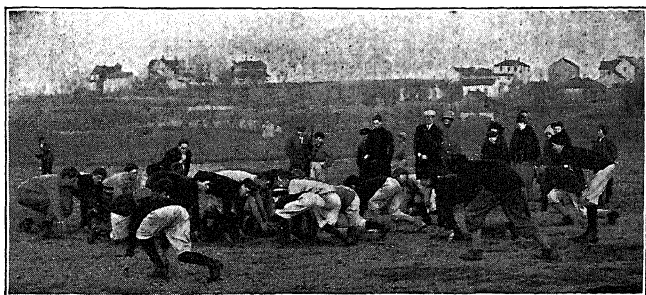


PLAYING DODGE BALL

to third, in a game of baseball, the shortstop that catches a fly ball must decide almost instantly where to throw it. An error in judgment may lose the game for his side. So it is with many of the games that young people play — they require quick and accurate judgment that is of practical benefit in after life. Some railroad men were talking about an accident that occurred, and they were of the opinion that the engineer was unable to bring himself to prompt action and stop his train at an unexpected signal, so he wrecked his train and lost his life. Perhaps if he had had this experience in games that require immediate and accurate judgment he could have reversed the lever, closed the throttle and saved his train.

HOW THE SCHOOL SHOULD PROVIDE FOR PLAY

Love of Freedom. — In every human being there seems to be a struggle of the will to be free — a revolt against law or restraint. In play, it is simply a sham; but if this



LINE UP FOR A GAME OF MODIFIED FOOTBALL
Designed for boys below high school grade

revolt becomes real and against constituted authority, it is a crime. This explains why school children are inclined to play pranks. School children, who are under the control of a teacher during school time, when recess comes break away from the restraints of school discipline and give full freedom to their wills in the outdoor recess. Closely directed exercise, such as marches and drills or gymnastic exercises, will not take the place of free play. At the free recess he can imitate the conventionalities of real life, by playing school, by contests of strength and fleetness, by mock battles in football, baseball, and snow-balling. All these and many others are imitations of the real transactions of life and are entered into with zest and perfect freedom.

Even grown men and women who put themselves under restraint and bind themselves down to books and school must have their time of relaxation and freedom from this restraint. This breaking away is so vigorous and so extreme that the authorities are sometimes shocked and chagrined. The whole nation of England went from the strict, hymn-singing times of Oliver Cromwell to the merry, profligate times of Charles II.

Neither grown people nor children can endure restraint all the time; there must be a time of freedom. It is true that "all work and no play makes Jack a dull boy," but it is equally true that all play and no work makes Jack a profligate boy. There must be equilibrium, and it is the place of the school to take account of this and provide for both work and play. Other things being equal, the school that judiciously provides means and opportunity for free play on the schoolground, will get the best work, both in kind and quantity.

In the Normal Bulletin which is sent to the rural teachers of Kansas, Mr. Clair Turner of the Physical Training Department of the Kansas State Normal School has spoken so well on the subject of the recess that by permission I am quoting him at length. He says:

The Recess Gang.—"Mr. Principal or Superintendent, what are you doing for that crowd of boys that collects in the corner on the sunny side of the school building at recess these fall days? Do you know the theme of the conversation there? How about the stories that are told, and the plans that are laid for the afternoon's mischief in school? If the crowd is a regular one about your school building you may as well get out your apple sprouts or your suspension blanks, for soon there is bound to be a fight, or other disturbance just as bad. Probably already there have been complaints by neighbors of stone throwing or broken windows, or of young children being tormented.

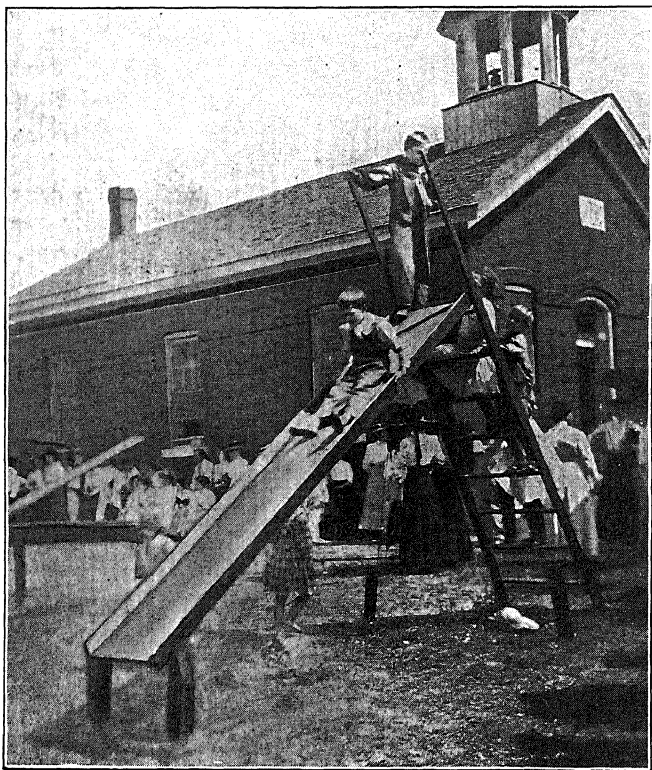
"These things can be easily prevented and the gang broken up by giving the boys something to do, for boys were made to do things, and, if there is not something good for them to do, they will do something perhaps not so good. Now the boy is naturally interested in gymnastics and athletics and he has an almost uncontrollable



PLAYING GERMAN BALL

play instinct. The teacher has a great opportunity to take advantage of these play tendencies as a means of developing growing muscles as well as growing brains. In the fifteen minutes twice a day provided by most Kansas schools, the teacher can get better acquainted with the pupils under his charge than he is able to do throughout the whole year.

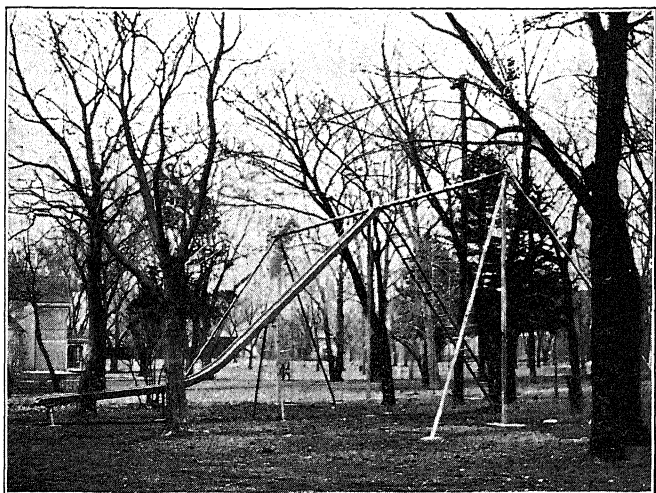
“Upon the playground the teacher can get into the real boy world. Here he will often find his dullard a typical general, and perhaps be shocked to find his favorite boy student not even considered in the ‘choosing up’ for a game. Perhaps, too, he may see the boy who can never get up courage enough to make a recitation, dive right into a football scrimmage, and another one with courage enough in school, who will shamelessly run away when there is danger of being ‘roughed up’ a bit in a



A SLIDE ON A RURAL PLAYGROUND

game. So the teacher who would really know his pupils and prevent the rising of the mob spirit must be with them at play and direct them in their games.

"The recess instead of being a period of aimless loafing should be entirely devoted to pleasurable physical activity that would increase circulation, oxygenize the blood, make sound muscles, give relief from sitting and

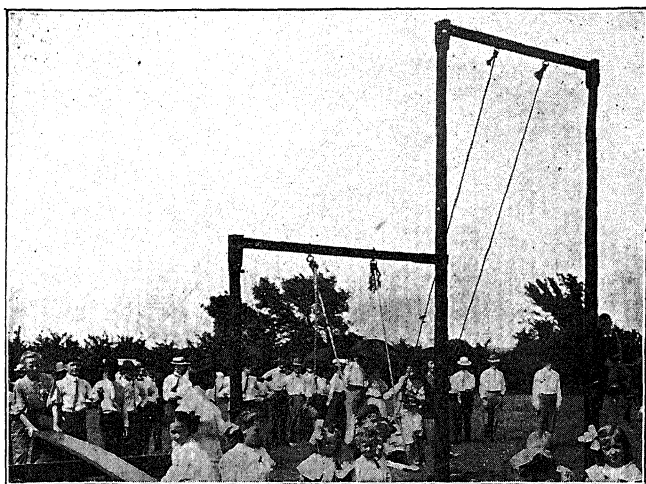


A COMBINATION APPARATUS
Ladder, rings, slide and two swings all in one

stooping postures and at the same time develop courage, self-reliance, and loyalty for team and school.

Playground Apparatus. — “Gymnastic apparatus upon the playground can be made very interesting, and there are many kinds that can be provided by the boys themselves at very little expense. One thing that never fails to attract is a jumping pit made by digging a hole one foot deep and six feet wide and say ten or twelve feet long. Fill this pit with builder’s sand, and you have an excellent landing place for broad and high jumping, as well as for pole vaulting and even tumbling.

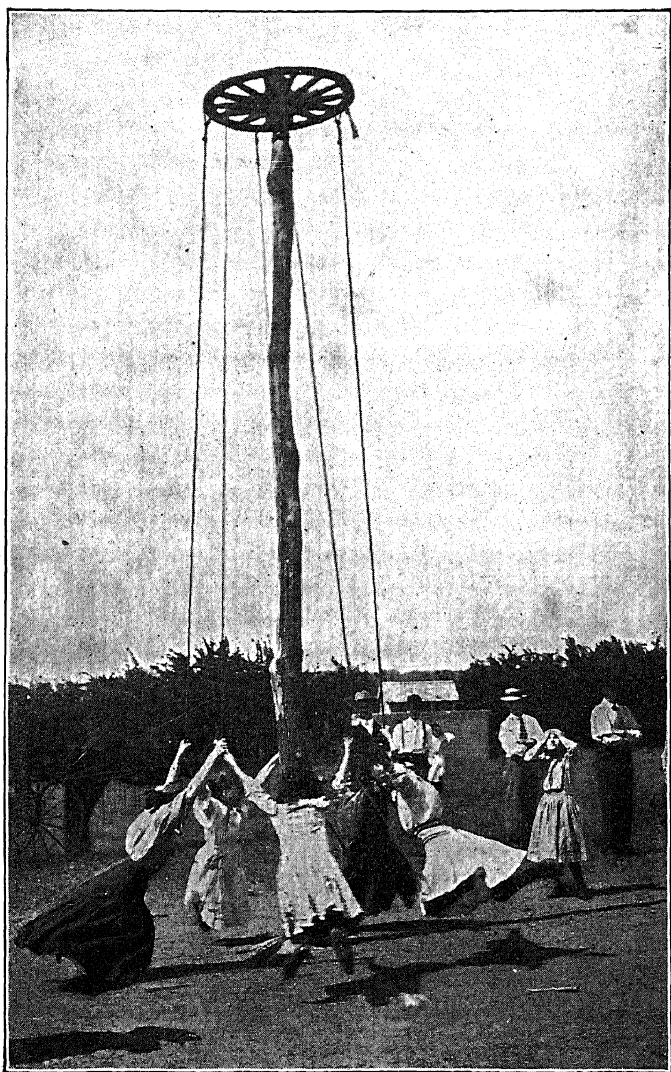
“Another piece of playground apparatus easily made is a German horse. Get a log about sixteen inches in diameter and about six feet long. Set it upon four legs so that it will furnish a back about three feet from the ground. Get the blacksmith to make two grips or pommels of iron



A COMBINATION OF SWINGS AND TEETER BOARDS

that can be placed transversely on the log, one about where a saddle horn would be and the other where the back rim of the saddle would come. Make these large enough to grasp easily when bolted through the horse. Now make a jumping pit at one side of the horse, and you have a piece of apparatus that will provide a great variety of exercises that children will enjoy.

“A horizontal bar can be easily made with six feet of two-inch gas pipe and a couple of poles for uprights. This bar should be high enough to allow the average boy to swing under it with arms and body at full length and should have a jumping pit under it extending at least six feet each way from under the bar. A low horizontal bar can be made similar to the high one. It should be about three feet from the ground.” This will provide for the smaller children.



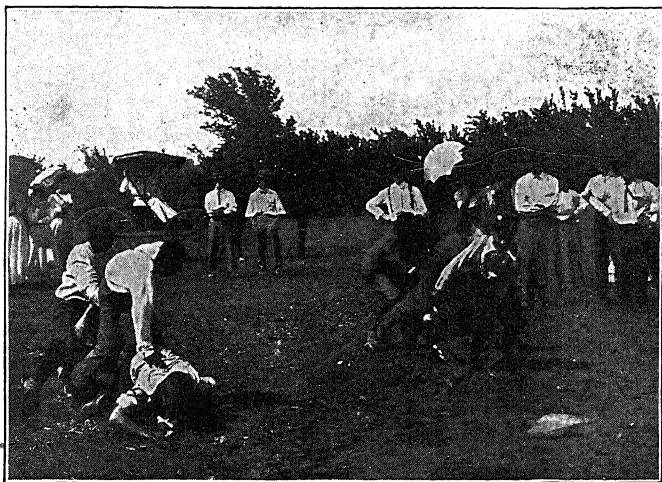
A GIANT'S STRIDE

What can be done in the way of equipping a school playground is graphically shown at Ellis, Kansas. The equipment is simple and inexpensive, yet well adapted to the purpose. There are swings for the boys and swings for the girls, a "teeter-totter," a tennis court, a baseball diamond, oblique ladder, turning poles, giant's stride and vaulting poles. Besides these there are seven sets of horseshoes, one set of boxing gloves, several sets of jumping weights, hammer shot, and a twenty-foot climbing rope. All these things were bought and paid for by the pupils and teachers of the school. Not a cent came from the treasury. This apparatus is used. I was surprised in examining the swings to find the ground worn out about a foot deep under each swing, showing that they had been extensively used. The principal told me that when everything else was out of use the giant's stride was still going.

Do you see how to make a giant's stride?

It is just an old wagon wheel and spindle on the top of a good pole firmly set in the ground, and ropes or chains from the rim. All the other apparatus is simple in construction, but answers every purpose. If to this were added a sand pile and some blocks from a carpenter shop for the benefit of the little people, you would have a very complete equipment.

The principal thinks that the effort he has put upon the playgrounds has materially aided the school, not only in the attendance, but also in discipline and the quality of the work done in the classroom. Since the playgrounds have been thus equipped there has been little or no need of punishment. There have been very few failures in the grades and lower classes of the high school, and none in the higher classes, and the school is well represented in the University and other institutions of the state.



“SKINNING THE SNAKE”

Apparatus for Rural Schools. — The teacher of a rural school may think that these things are all right for a village or city school, but that they cannot be had in a country school. While it is true, perhaps, that not all these things may be obtained for a rural school, yet what is needed may be secured. The teacher can have some of them, if he wants them and is willing to put forth an honest effort to get them. It will depend very much upon the school what can be gotten and what is needed. If there is a number of large girls in school, a basket ball equipment is good. If little people predominate, a swing and a sand pile are perhaps all that is needed. What should be gotten will depend very much upon the school and surroundings.

Games and Plays. — But if equipment for a playground cannot be gotten, a book of school games and plays can be put into the library and the children taught new games

when the old ones wear out. There are plenty of games that do not require any equipment, and that will keep the children interested on the playground. Many good ones may be found in the books listed below.

Remember that games and plays educate as well as develop the body, and that they are a part of every good school.

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Chapter XIII

THE LIBRARY AND ITS USES

Importance. — Every school that is without a library is placed at a disadvantage. One of the great objects of the school is to acquaint the pupils with good books, and to give them ability to use them. If in his school days a pupil comes into contact with his textbooks only, his opportunity is dwarfed and the school is doing only part of what it should do for him. Why does the child spend so much time in learning to read unless he is going to use this ability in reading? And will he not take more interest in learning to read if he sees that it is all for a purpose, namely, to read something for his own gratification and pleasure?

Then, the textbook is written with a definite object in view, and much that is of interest to the child must be sacrificed in order to accomplish this object. For example, the readers must be graded so that the pupil will be led step by step into the art of reading. No complete long story can be given, no poem of any length can be inserted, no complete biography can be used. Just snatches of the best are given, and the teacher is supposed to lead the pupils to an interest in literature from these bits of the great masterpieces.

What is true of literature is true of history. Only a small part of what is known of our country can be put into

one textbook. There should be other histories in the school for those whose interest may lead them to further reading.

Thus it is with almost every study. The school textbook merely gives the pupil a start in the subject, and the school should provide means for advancement, or, better still, encourage advancement into broader fields along the lines wherein the pupil shows ability.

ACQUIRING A LIBRARY

How to Start a Library. — In assembling a library, do not ask for general contributions from the patrons of the school. One will feel obliged to accept all the books that come, and in doing this he will probably receive the rubbish of the neighborhood. Not many people are willing to give away their best books, but will freely part with those for which they do not care to provide room any longer. Then, too, one will get some books that are worse than useless to the school. In this way the shelves can be filled up, but the library will be useless, to say the least. As a rule, buy books outright from a list that has been carefully selected by competent judges.

Of course, if there is a library fund or if a library tax can be levied, this is the best way to get the money. Many teachers have started a library by giving an entertainment of some kind and charging a small fee. This accomplishes two things, it secures the money and interests the patrons and school in the enterprise. Often when a library is once started, it will be maintained and built up by district funds.

Traveling Libraries. — Thirty or more states have traveling libraries. These are managed by commissions or boards and are maintained in many instances at state

expense. The thing of interest to the rural teacher who is without a library, however, is that one may be had at a very nominal expense. Usually this is the cost of transportation to and from the depository. A letter of inquiry to your state librarian, or secretary of the library commission, will bring needed information. In case these are not known, make inquiry of your state superintendent. No school need be without a small library. From the traveling library at a cost of two or three dollars, a list of fifty or more books may be had for the school term. Sometimes a teacher has the opportunity to choose such books as he desires for his school. A little extra enthusiasm and a bit of hard work will raise the money.

WHAT TO BUY

How to Use and What to Buy. — How to use often depends on what there is to be bought, and what to buy, on how the books are to be used. In purchasing books for a library, some teachers, and others also, are impressed with the idea of "getting a library." This is a vague impression of books, and almost any book will help to make this library. The picture of a number of books is clearly outlined but quality and usefulness do not enter into its make-up, so the object is often to get the greatest possible number of showy books. This is akin to receiving collections from the neighborhood; it fills up the shelves but does not provide a library that can be used. Agents try to sell sets of books. They look well and are all right, providing there is unlimited means with which to build up a library.

A Working Library. — What a school needs first is a number of books that a teacher can use in the every-day work of the school.

This may be called a working library. Often, in buying the first books for a library, the teacher thinks he must buy books for general reading, such as would be called a circulating library. But a better way is to buy books for use in the school. A few copies of Florence Bass' "Lessons for Beginners" make an excellent choice for the teacher who expects to teach beginners reading by the object method. Miss Bass begins with plants, — things with which children in the country are acquainted — the very place to begin so that the object may be brought into the room and the teacher may proceed from the known to the unknown, presenting first the object, then the spoken word, and then the written word. A teacher might well afford to buy some such set out of his own earnings if they could not be gotten for the library in any other way.

There should be duplicate copies of first and second readers to be used as supplementary readers. Often the teacher will want to use them for sight reading. Then he will keep the books in his own possession and give them to the class only at the recitation period. No study is supposed to be given to such lessons; they are intended to give skill in reading new matter. The "Mother Goose Reader" is an excellent book for this purpose. It is suited for about the first or second grade. Enough copies of this book to supply an average class in school should be included in the first order. Then there should be a number of books for nature study and books of cultural value. There are many excellent books from which to make this selection.

A working library will furnish books for the little people so that they may read as soon as they have acquired the ability. "Child Life," a first reader published by Macmillan, is a good book for this purpose. Some that are

a little too difficult for the pupils to read may be read by the teacher and the stories used for language work and ethical instruction. Perhaps "Sleepy-time Stories," published by G. P. Putnam's Sons, will suit most teachers for this purpose.

Again, there should be some books on agriculture, in order that the boys may be led to read along this line. There are many good books being put upon the market each year, and much good information can be obtained from them. "Farm Life Readers," published by Silver, Burdett and Company, is a series which will commend itself to the rural teacher. Then, too, the writing of a postal card will bring valuable information from the Agricultural Department at Washington or from the Agricultural College regarding bulletins and reports. Many of these can be had for the asking.

No field of school literature is richer with excellent helps than geography. There are a great number of sets of geography helps, each covering almost the whole field, and no school library is complete without a number of these books. They furnish the material for making geography the most interesting subject in school instead of the driest. By the use of such books the subject may be made more useful and more practical.

Of course, there should be books on history to supplement the text used, but it is of equal, or perhaps greater, value that a number of history stories and biographies be furnished the young to lead them to the desire for reading history.

A library would not be complete without a few books for general reading. A good many boys and girls have no taste for reading. For this reason some books of a light nature should be on this list. Each year the Kansas Reading Circle Board selects a list of the best new books.

USING THE LIBRARY

Preparing a Place for the Library. — Even before the library has been purchased, some thought ought to be given to how to preserve it. As soon as it has been determined that books will be bought for the school, "Where shall the books be kept?" is a pertinent question. If there is money enough, with the first order a case should be purchased. This is taking for granted that a bookcase was not built into the house when it was first erected. If the amount of money is small and the need of books is great, as is usually the case, no embarrassment need be felt, for a small box fitted with a few shelves and deep enough to receive the books, may be nailed to the wall, and will answer every purpose. If some one can be induced to make a door for it, the cost of the hinges and lock will be all the necessary expense, unless it is for a little paint. If no door can be had, the teacher or one of the older girls can make a curtain that will cover up the rough exterior and protect the books from dust.

How to Use a Library. — It is sometimes hard to interest boys and girls in good books and get them to read for themselves. The following way has been suggested by a teacher of long experience in the teaching of literature: Let the teacher read to the school an interesting chapter from a book and then place it on the shelves. Interest will thus be aroused and pupils will be asking for more from that book. The teacher will say, "You may take the book and read it for yourself, if you like." Do not suggest that pupils read it, but let them come to the teacher first.

Another plan is to go through the geography somewhat in advance of the class to see what aid is needed and what can be found in the geography helps. Suppose the lesson

is about China, and there is in the library, "Stories of China," by Miss Pratt. When something of interest is found in this book some such note as the following in light pencil may be made on the margin of the geography: "See 'Stories of China,' page 40." There will usually be found in the class some one who can get his lesson and have time to play. Ask this one to look up what is on page 40 in "Stories of China" and tell it to the class. This accomplishes two things, — something additional and interesting has been given to the class, and the bright pupil has been given something to do to keep him out of mischief. This plan can be used in other subjects also.

Those pupils who are easily stronger than the other members of the class and who have proved themselves such in their recitations may be given permission to use the library after they have their lessons prepared. In some of the Denver schools this plan is used to equalize the work of the dull and bright pupils in a grade. A few books are kept in the room, and pupils may read or study along the line of their choice, even during the time of the recitation, providing they hold themselves in readiness to be called upon at any time to answer a question in the recitation that other members of the class cannot answer. If they are unable to answer the question, they lose their privilege until they prove themselves again in the recitation. It is not necessary to have a large library in order to carry out this plan. One book on the teacher's desk is enough to start it in a school and furnish profitable employment for a bright pupil and save a teacher trouble and worry.

Extended Use of Library. — The library movement is not selfish in its spirit, but rather philanthropic. The use of a small library in a district school should not be confined to the school alone, but should extend to all the

district whenever and wherever there is opportunity. As the library grows, the needs of the patrons and taxpayers should be recognized in the selection of books and magazines. The school should strive to uplift the community, and the library may be its most potent instrument. The school library might be the medium of exchange for farmers' bulletins, papers, and books on farming, poultry raising, dairying, household economy, home sanitation, and so on.

Librarian. — While school is in session the teacher should act as librarian, during vacation the clerk or some other member of the board. A strict account should be kept of every book that goes out of the room. Books should be returned at the end of two weeks or renewed, and due appreciation and regard for the books must be required of all. Nothing destroys the usefulness of a library sooner than to allow the books to be misused. Children should early be taught to love and care for a good book.

SUGGESTED PLAN OF ORGANIZATION FOR SMALL SCHOOL LIBRARY

(One hundred volumes or less)

Compiled by Willis H. Kerr, Librarian, Kansas State Normal School, Emporia, Kansas

Minimum organization:

- A. Permanent record book (called Accession book)
- B. Property stamp.
- C. Record of issue.

A. *Permanent Record of all books in the library:*

Headings extend over two opposite pages, thus:

| Readings entered on the opposite pages, thus: | | | | | |
|---|-----------|------|--------|-------|---------|
| (Left-hand page) | | | | | |
| No. | Date | Vol. | Author | Title | |
| (Right-hand page) | | | | | |
| Place | Publisher | Year | Source | Cost | Remarks |

Such a book may be purchased already ruled from Library Bureau, 37 S. Wabash Ave., Chicago, Ill. Ask for Condensed Accession Book No. 1059, price \$1.10 postpaid.

Explanation of above headings:

1. No. — Lines numbered consecutively 1, 2, 3, etc.
2. Date — Date of invoice.
3. Vol. — Give volume number if a work is in more than one volume. Never enter more than one volume on a line.
4. Author — Last name, followed by initials.
5. Title — Short title.
6. Place — City where published.
7. Publisher — First company mentioned on title page. For example: Ginn, Macmillan, Scribner, Wiley.
8. Year — Date given at bottom of title page. If none, use last copyright date, given on back of title page.
9. Source — Bookseller from whom purchased, or name of donor.
10. Cost — Actual cost to school. If a gift, mark "g" in this column.
11. Remarks — Used chiefly to show when book is worn out, lost, withdrawn for contagion, etc.
12. In accession books on the market, other headings are given and should be used by librarians of larger libraries.

As soon as books are received, enter each on a line of the accession book, and put the number of the line (accession number) in the volume received, at the bottom of the first right-hand page after title page; write it in bold clear figures with ink. This number is called the accession number of the book.

B. Property mark:

This identifies your book when it is out of the school-room, and is indispensable even in the smallest library. A rubber stamp is the cheapest form. A good style is small Gothic lettering, reading thus, for example:

OAK HILL SCHOOL LIBRARY
CLAY COUNTY, KANSAS
DISTRICT 37. No. —

Rubber stamps may be secured from any dealer in rubber stamps at a cost of forty or fifty cents.

Stamp the title page of every volume, the inside of the front cover, and also a certain arbitrary page (say, 21) of each volume.

Inventory, or take stock of the books each autumn when school opens. With the accession book in hand, go carefully through the shelves and note in the Remarks column, "Not found, Sept. —," for every volume missing. (Use pencil for these remarks, erasing note when book is found.) Make list of missing volumes for your own record, and report it to the School Board.

C. Record of Issue:

Have on your desk slips of paper about 3 by 5 inches in size, and for each book given out write the accession number, the name of the person who takes it home, and the date. Keep these slips in an envelope marked "Books out." When a book is brought back, find and destroy the slip. Insist that all books be returned before last day of school.

This form of slip is suggested as about the simplest that can be devised. If these are kept alphabetically arranged any name may easily be found. By twisting the cards one way the number of a book may be seen, by twisting them the other way, the dates will appear and books due will be found.

No. 365.

Snyder, Walter.

11 / 27 / 12. Date.

The following list is only suggestive of the different classes of books which are suited for a rural school library. When this list is exhausted and the library has grown beyond the limits of a small rural school library, other sources of information should be sought regarding selection of books and organization.

A' WORKING LIBRARY FOR COUNTRY SCHOOLS

Compiled by Miss G. M. Leaf, Reference Librarian,
Kansas State Normal School, Emporia, Kansas

(The grades for which each book is suitable are indicated.)

Reference Books

Adams, C. C., *Textbook of Commercial Geography*. D. Appleton & Co., \$1.30.

Appleton's Encyclopedia. 6 vols. D. Appleton & Co., \$18.00. (May be bought of dealers for \$9.75.)

Gayley, C. M., *Classic Myths in English Literature, Revised*. Ginn & Co., \$1.50.

New Family Atlas of the World. Rand, McNally & Co., \$1.00.

Webster's Collegiate Dictionary. G. & C. Merriam Co., \$3.00.

Bible Stories

Bible for Young People; arranged from the King James version by Mrs. J. B. Gilder. New ed. Century Co., \$1.50. (4-6.)

Bunyan, *Pilgrim's Progress*. (Riverside sch. ed.) Houghton Mifflin Co., 60c. (7-8.)

Heermans, *Stories from the Hebrew*. Silver, Burdett & Co., 42c. (4-5.)

Proudfoot, *Child's Tales*. A. Flanagan & Co., 75c. (3-5.)

Easy Reading for the Youngest Readers

Andersen, *Fairy Tales*, ed. by Turpin. Small, Maynard & Co., 40c.

Baldwin, *Fairy Stories and Fables*. American Book Co., 35c.

Bass, *Nature Stories for Young Readers*. 2 vols. D. C. Heath & Co., 70c.

Grimm and Grimm, *Fairy Tales*, ed. by Wiltse. 2 vols. Ginn & Co., 70c.

Grover, *Overall Boys*. Rand, McNally & Co., 38c.

Grover, *Sunbonnet Babies' Primer*. Rand, McNally & Co., 40c.

Lindsay, *Mother Stories*. Milton Bradley Co., \$1.00.

Mickens and Robinson, *The Mother Goose Reader*. Silver, Burdett & Co., 36c.

O'Shea, *Six Nursery Classics*. (Home and School Library.) D. C. Heath & Co., 20c.

Perrault, *Tales of Mother Goose*, tr. by Welsh. D. C. Heath & Co., 20c.

Potter, Beatrix, *The Tale of Peter Rabbit*. Frederick Warne & Co., 50c.

Progressive Road to Reading, Book 1. Silver, Burdett & Co., 32c.

Progressive Road to Reading, Book 2. Silver, Burdett & Co., 40c.

Scudder, H. E. ed., *Book of Fables and Folk Stories*. (Riverside Literature Series.) Houghton Mifflin Co., 40c.

Serl, *In Fable Land*. Silver, Burdett & Co., 45c.

Myths, Legends, and Fairy Tales

Baldwin, *Story of Siegfried (Heroes of Olden Times)*. Charles Scribner's Sons, \$1.50. (5-7.)

Brown, *In the Days of Giants: a Book of Norse Myths*. (Riverside Literature Series.) Houghton Mifflin Co., 50c. (4-5.)

Hawthorne, *Wonder Book and Tanglewood Tales*. (Riverside Literature Series.) Houghton Mifflin Co., 40c. (6-9.)

Pyle, *Some Merry Adventures of Robin Hood*. (School Readings.) Charles Scribner's Sons, 50c. (6-8.)

Ruskin, *King of the Golden River*. Rand, McNally & Co., 25c. (4-6.)

Zitkala-Sa, *Old Indian Legends*. Ginn & Co., 50c. (5-7.)

Nature

Andrews, *Stories Mother Nature Told her Children*. Ginn & Co., 50c. (3-5.)

Brown, *Plant Baby*. Silver, Burdett & Co., 48c. (4.)

Burroughs, *Birds and Bees*. Houghton Mifflin Co., 60c. (7-8.)

Dana, *Plants and Their Children*. American Book Co., 65c. (4-5.)

Kirby, Mary and Elizabeth, *Aunt Martha's Corner Cupboard*. Educational Publishing Co., 40c. (3-5.)

Miller, *First Book of Birds*. Houghton Mifflin Co., 60c. (5-8.)

Poulsson, *In the Child's World*. Milton Bradley Co., \$2.00. (1-3.)

Poulsson, *Through the Farm Yard Gate*. Lothrop, Lee & Shepard Co., \$1.25. (1-2.)

Saunders, *Beautiful Joe*. American Baptist Publication Society, 60c. (4-6.)

Serl, *In the Animal World*. Silver, Burdett & Co., 50c. (4-6.)

Willis and Farmer, *Month by Month*. 3 vols. Kellogg, \$4.00.

Agriculture

Burkett, Stevens and Hill, *Agriculture for Beginners*. Ginn & Co., 75c.

Duncan, Evans and Duncan, *Farm Life Readers*. Bks. 4 & 5. Silver, Burdett & Co., 45 & 50c.

Goodrich, O. L., *First Book of Farming*. Doubleday, Page & Co., \$1.00.

Jackson and Daugherty, *Agriculture through Laboratory and School Garden*. Orange Judd Co., \$1.50.

Kansas Agricultural College, *Bulletins*.

Kern, *Among Country Schools*. Ginn & Co., \$1.25.

King, *Textbook of the Physics of Agriculture*. F. H. King, \$1.75.

McKeever, *Farm Boys and Girls*. The Macmillan Co., \$1.35.

Sargent, *Corn Plants, their Uses and Ways of Life*. Houghton Mifflin Co., 75c.

U. S. Department of Agriculture, *Farmers' Bulletins*.

Amusements and Occupations

Adams, *Harper's Indoor Book for Boys*. Harper & Bros., \$1.75. (7-8.)

Adams, *Harper's Outdoor Book for Boys*. Harper & Bros., \$1.75. (7-8.)

Alexander, *Songs We Like to Sing*. Silver, Burdett & Co., 35c. (7-8.)

Bacon, *Songs That Every Child Should Know*. Doubleday, Page & Co., 90c. (7-8.)

Baker, *Boy's Book of Inventions*. Doubleday, Page & Co., \$2.00. (7-9.)

Barnard, *Tools and Machines*. Silver, Burdett & Co., 60c. (5-6.)

Bancroft, *Games for Playgrounds, Home and School*. The Macmillan Co., \$1.50. (6-7.)

Benton, C. F., pseud., *Saturday Mornings*. Dana Estes & Co., 75c. (5-7.)

Literature

Lamb, Charles and Mary, *Tales from Shakespeare*. (Riverside Literature Series.) Houghton Mifflin Co., 50c. (6-8.)

Norton, *Heart of Oak Books*. Vols. 1-2. D. C. Heath & Co., 60c. (1-2.)

Stevenson, *Child's Garden of Verses*. Rand, McNally & Co., 50c. (2-4.)

Wiggin and Smith, *Posy Ring*. McClure Co., \$1.25. (5-6.)

Geography Aids

Andrews, Jane, *Seven Little Sisters*. Ginn & Co., 50c. (2-4.)

Ayrton, *Child Life in Japan*. (Home and School Classics.) D. C. Heath & Co., 20c. (5-6.)

Carpenter, *Geographical Readers*. 6 vols. American Book Co., 60c each. (5-8.)

Africa, Asia, Australia, Europe, North America, South America.

Carroll, *Around the World Series*. 5 vols. Silver, Burdett & Co., each 36c. (1-6.)

Chamberlain, *How We Travel*. (Home and World Series.) The Macmillan Co., 40c. (4-6.)

Chance, *Little Folks of Many Lands*. Ginn & Co., 50c. (1-2.)

Dunton, *World and Its People Series*. 12 vols. Silver, Burdett & Co., 36 to 60c. (2-8.)

Little Journeys, ed. by M. M. George. 10 vols. A. Flanagan Co., 50c each.

Alaska and Canada; Cuba and Porto Rico; France and Switzerland; Germany; Holland and Belgium; Mexico and Central America; Norway and Sweden; Russia and Austria; Turkey; The Balkans and Greece.

Long, *Home Geography*. American Book Co., 25c.

Our Little Cousin Series. 11 vols. L. C. Page & Co., 60c each. (3-4.)

Alaska; Australia; Chinese; Cuban; Greek; German; Italian; Panama; Philippines; Spanish; Swedish.

Peeps at Many Lands. 16 vols. The Macmillan Co., 50c each. (8-9.)

Burma; China; Egypt; England; Germany; Greece; Holland; Scotland; Switzerland; Holy Land; Iceland; India; Italy; Japan; Morocco; Norway.

Shaw, *Big People and Little People of Other Lands*. (Eclectic Readings.) American Book Co., 30c. (3-4.)

Starr, *Strange Peoples*. (Ethno-geographical Readers.) D. C. Heath & Co., 40c. (5-7.)

History and Biography

Andrews, *A Perfect Tribute*. Charles Scribner's Sons, 50c. (6-8.)

Baldwin, *Fifty Famous Stories Retold*. (Eclectic Readings.) American Book Co., 35c. (3-5.)

Blaisdell and Ball, *Hero Stories from American History*. Ginn & Co., 50c. (5-7.)

Eggleston, *Stories of American Life and Adventure*. (Eclectic Readings.) American Book Co., 50c. (3-5.)

Eggleston, *Stories of Great Americans for Little Americans*. American Book Co., 40c. (3-5.)

Hazard, *Indians and Pioneers*. Silver, Burdett & Co., 45c. (5-6.)

Mowry, *Hero Series. American Pioneers*, 65c (5-7); *American Heroes and Heroism*, 60c (5-6). Silver, Burdett & Co.,

Newell, *Indian Stories*. Silver, Burdett & Co., 45c. (5-6.)

Starr, *American Indians*. (Ethno.-geog. Readers.) D. C. Heath & Co., 45c. (5-8.)

Stone and Fickett, *Everyday Life in the Colonies*. D. C. Heath & Co., 35c. (4-6.)

Tappan, *European Hero Stories*. Houghton Mifflin Co., 65c. (6-8.)

Stories

Alcott, *Little Women*. Little, Brown & Co., \$1.50. (5-7.)

Defoe, *Robinson Crusoe*. (Riverside School Library.) Houghton Mifflin Co., 60c. (6-8.)

Dodge, *Hans Brinker*. Charles Scribner's Sons, 75c. (5-8.)

Eggleston, *Hoosier School-Boy*. Charles Scribner's Sons, 60c. (6-8.)

Hale, *Man without a Country*. (National edition.) Little, Brown & Co., 35c. (6-8.)

Spyri, *Heidi*. (Home and School Library.) Ginn & Co., 40c. (4-5.)

Swift, *Gulliver's Travels into Several Remote Regions of the World*. (Home and School Classics.) D. C. Heath & Co., 30c. (6-8.)

Westover, *Bushy*. Silver, Burdett & Co., 75c. (6-7.)

Wiggin, *Bird's Christmas Carol*. Houghton Mifflin Co., 50c. (5-8.)

Wyss, *Swiss Family Robinson*. (Home and School Library.) Ginn & Co., 45c. (5-7.)

Zollinger, *Widow O'Callaghan's Boys*. A. C. McClurg & Co., \$1.25.

REFERENCES

Bulletins may be obtained from the library commissions of the different states or from the state department of education. These often contain graded lists of books from which selections may be made; they also give helpful hints about the choice, care, and use of books. The following are good:

Brown and Webster, *Buying Lists of Books for Small Libraries*. 1913. American Library Association Publishing Board, 78 E. Washington St., Chicago, Ill., 15c.

Ely, *Library Aids for Teachers*, State Normal School, Duluth, Minn., 15c.

New York Education Department, Division of School Libraries. An annotated, graded, and classified list of books suitable for elementary school libraries (Bulletin, Feb., 1912), Albany, N. Y.

Walter (of N. Y. State Library), *The Care of School Libraries*. Printed by Michigan State Board of Library Commissioners, Lansing, Mich.

Chapter XIV

SCHOOL GOVERNMENT

Its Importance.—If it were asked, “In what especially do teachers fail?” the answer would be, “In school government.” It may very easily be detected, for the children report it to their parents, the board members soon find it out, and it is apparent to the superintendent the moment he steps into the room. The teacher may be making a failure of instruction, but if he keeps “good order” the children cannot determine whether the instruction is good, bad, or indifferent, and the superintendent may not, in his short visit, at once discover that the teaching is of poor quality.

Thus it is that school government becomes a very important subject to every teacher. If a teacher cannot govern a school he must move on from place to place, not rising in the profession but merely eking out an existence. Then, too, quiet and order are very important features of the school itself. A schoolroom should be a place for study, and a pupil has a right to a place where he can study without serious interruption. Then again, boys and girls need to learn at school what many of them do not learn at home, viz., to be obedient to law. They need to learn obedience, system, punctuality, orderliness, and respect to superiors, and many of them will learn this, if at all, only in a well-governed school.

AIDS TO SCHOOL GOVERNMENT

Since school government is of such importance, if the State Normal School could instruct the teachers of its state how to govern successfully, it would pay to dismiss the schools for a year and have all the teachers study school government. But the truth is, each teacher must govern his school in his own way, and the school which he teaches may require quite a different form of government from the school in an adjoining district. A teacher's personality must enter into all his school work, and especially into his school government.

While it may not be possible to tell just how to govern a school, it is hoped that some things may be said that will set teachers to thinking, and that will help them better to help themselves.

It has been said that the best governed school is the one that is least governed. It is hoped that the few suggestions which are given in this chapter will aid the young teacher in making the school self-governing.

Plans for Each Day Necessary. — If the teacher will plan his work from day to day and know just what he expects to do and how he is to do it, it will greatly aid him in the management of his school. Something may arise to hinder what he has outlined for the day, but it will be much easier to make some minor changes in his plans than to think them out as the work of the school progresses.

Lessons Well Studied. — Closely allied to the first suggestion, if not a part of it, is preparation of the lessons for the day. They should be well planned and well studied. Many a school has become disorderly while the teacher was vainly trying to work a problem for the class in arithmetic, or while he studied out the analysis of a

difficult sentence that he did not know was in the lesson. Disrespect is almost always engendered for the teacher who does not know. Sham knowing will not suffice; it is better to say, "I do not know," but this should not be said too often.

Definiteness in Assignments and Requirements. — Sometimes a lesson is not learned because the pupils do not know just what they are expected to do. "Take the next page" can seldom be deemed an assignment. Especially with small pupils the teacher should be very definite about what is to be learned and how to study it. This means more time for this part of the work, but it means better work on the part of the pupils and less annoyance for the teacher while hearing another class. Then, too, the pupils do not know just what is expected of them in passing to and from class, or what is meant by some regulation for the play at recess and noons. The pupils sometimes try to take advantage of an ambiguous regulation, as is illustrated by the following: Some boys and girls were accustomed to go to one of two hills to coast during intermission, and were always late. The teacher told them that they should not go to that hill any more, for it made them late getting in. They did not go to that one, but went to the farther one and were late as usual.

Showing Reasonableness of Requirements. — A young boy is more willing to obey when he knows the reason why. It is a good thing for the teacher to explain the reasonableness of regulations, for it will restrain him from making arbitrary rules. It also makes the pupils feel that they are consulted in affairs of the school, and, to some extent, are coöperating in its management.

Keeping Every one Busy. — If one can keep the school busy, he will not need to do much governing. This is

where our modern schools are an improvement over the old-time school, where the rod was such an important factor. One good way to keep everybody busy is to make out a program of studies for each class; then pupil and teacher both know just what is to be done. When this is well understood, before beginning a recitation, the teacher should see that each one is busy at his own task.

It will pay to become enthusiastic about work. Let the teacher work himself, and get others to work from the very first hour of the first day to the last hour of the last day of school. This is one of the secrets of good school teaching. Use it for all it is worth.

Making Use of School Games and Plays. — There is a certain amount of motor energy that becomes stored up in the body during the study periods that must be worked off. If confined too long, like dammed-up water, it will finally break its bounds. Good, vigorous plays and games are helpful for every school, and it will pay the teacher to be able to step in and give suggestions about new games when the old ones are worn out or when the rivalry becomes too strenuous. Vigorous play, outdoors, often saves annoying tricks during school hours. The teacher's interest in the school play often elicits the pupils' coöperation in the work of the schoolroom.

But never let disorder reign in the house, either at recess or during school time. Unrestrained conduct in the house at recess leads to noise and confusion during the school period. Play in the house during stormy weather should be under the direction of the teacher. The schoolroom should be sacred to study.

Personality of the Teacher. — Of all the aids to school government mentioned above, none is so important and so effective as the personality of the teacher. To command and receive obedience seems almost natural to

some; to others this power is obtained only with great effort. For one, his very presence seems to command respect and obedience; for another, even his looks seem to be against him and to cause disrespect. The former class seem to be a favored few, but if what we learned in a previous chapter be true, then each one can keep his personality at its best and improve it as time goes on. If we would care for our health, we must keep our body at its best; if we would add something new and enlivening to our mental store, if we would cultivate our moral natures, we must live up to the best that is in us; in other words, if we would be our best in our three-fold nature, our personality would grow and we would command the respect of those with whom we associate. If the teacher's personality is what it ought to be, it will show itself in neatness of dress, and in personal appearance. The voice should be cultivated; a sharp, rasping, high-keyed voice will unnerve a whole school and will lead to disorder and noise.

THE INFLICTION OF PUNISHMENTS

A Time for Action. — All the above suggestions may be followed out almost religiously, and yet in some schools and under some conditions things will not go right. There will come a time when something must be done. This may be the making of a rule and the infliction of the penalty; or it may be the infliction of corporal punishment. Here are found two classes of teachers: One becomes frightened, begins to tremble and never reaches the point of actually inflicting punishment; the other is in a hurry and reaches the punishment before it is necessary. The latter are the ones who whip on slight provocation, forgetting the principle that "the least punish-

ment that will accomplish the end is the right punishment." Punishments of all kinds should be incentives of last resort, and especially should this be true in the case of corporal punishment.

The End of Discipline, Character. — In all school government, in all discipline, in all punishment, the teacher should keep in mind that it is for the good of the pupil. It is not for the school, nor for the community, nor for the state, but for the individual pupil. He is interested in building character, and if he can develop wholesome moral characters in his pupils, all these other things will take care of themselves. If he can whip a boy to make him better and is able to show him that this is the reason for it, he will probably make a right use of corporal punishment. If, however, he whips him to vindicate himself, or even to set an example for the rest of the school, he will fail. There are other secondary objects, but the principal end of school government is development of character.

Continuous Discipline. — School government should be continuous, i. e., it should be the same to-day that it was yesterday. It should not depend on the teacher's digestion nor the condition of the weather, but should be calm and firm from morning until night, from one week to the next. A boy unintentionally paid a high compliment to his teacher when he said, "You would do what you promised even if the world came to an end." The teacher whose discipline is even, though strict, will in the end be respected by his pupils; indeed, pupils as a rule believe in strict discipline and like it providing it is "fair." The teacher who can maintain an even temper and a high average of self-control on his part and on the part of his pupils, is the teacher who is, to that degree, successful in school government.

CORPORAL PUNISHMENT AS VIEWED BY THE COURTS

As many young teachers have not been instructed in school law regarding corporal punishment and do not know the attitude of the courts toward those who inflict this form of punishment, it might not be out of place to introduce a brief discussion of its legal aspect. The following paragraphs are from the pen of Professor L. A. Parke, formerly a practicing attorney, now head of the department of commerce of the Kansas State Normal School, who has made a thorough study of court decisions relative to school law.

“ This brief discussion of corporal punishment is not a consideration of it from a pedagogical view point, but is merely a statement in very condensed form of what the courts have decided. Many cases have been carried up to the courts of last resort in the different states, thus showing that corporal punishment in the schools has been a prolific source of litigation. Parents are quick to resent what they consider any unjust or unduly severe chastisement of their children by a teacher, and courts and juries scan closely the circumstances attending its infliction and the *spirit and motive of the teacher who inflicts it*.

Right to Inflict. — “ The courts, however, with entire unanimity have affirmed the right of the teacher to administer corporal punishment unless a statute of the state or a regulation of the school board forbids it, but there has been some difference of opinion as to the degree of severity that may be used.

Degree of Severity. — “ The earlier cases permitted a more severe chastisement than later cases uphold. The teacher must exercise his authority with discretion and moderation. When, in the judgment of reasonable men,

the punishment is clearly immoderate or excessive, a jury will be justified in finding the teacher guilty of assault and battery. In determining what is a reasonable degree of punishment, the circumstances attending the offence — the age, size, strength, and sex of the offender, his apparent motive, the nature of the offence, the influence of his example on others, his attitude towards his teacher and his past conduct — may all be considered. The obduracy of a pupil under punishment may justify severity, but it does not follow that a teacher would be justified in continuing the punishment until the pupil should be subdued. The obduracy of the pupil would not warrant immoderate punishment. All necessary force may be used to overcome the resistance of the pupil to reasonable punishment or to the proper commands of the teacher, but no unnecessary or disproportionate force or violence may be employed.

Attitude of the Teacher. — “ The bearing of the teacher is an important factor in determining whether the punishment is justified in the eye of the law. Punishment must not be inflicted in anger or insolence, but should be given in a kind and reasonable spirit, and one court adds, ‘ accompanied with that affectionate moral suasion so eminently due from one placed by the law *loco parentis*, the sacred relation of parents.’ ”

PLACING PUPILS ON THEIR HONOR

When you are master of the situation, you can allow a great many privileges that otherwise you would deny. By being master of the situation is meant that you know your school and feel confidence in yourself that you can restrain any abuse of a privilege, or are sure that you can prevent your school from getting away from you, or,

if it does get a start, that you can easily bring it back to its original behavior. This is not an admonition to young teachers, but to those who have had experience and know their ground. Children like to be free, so does the teacher; then let the boys and girls be put upon their honor and be given an opportunity to develop character.

Place confidence in your pupils. As soon as boys or girls know the meaning of honor they ought to have an opportunity to exercise honor, and the teacher ought to trust them so far as they are able to bear. When a settlement has been made with a pupil and he has promised to do right, expect him to do right. Do not watch him from the corner of your eyes, and expect him to do the same thing over again, but trust him, and you may not need to see some little things that he has done, especially if he is making an honest effort.

THE PSYCHOLOGY OF MOTOR ACTIVITIES

The impressions that come through the sensory organism tend to work themselves out in motor activities of appropriate form. For example, if while hungry one is passing a house and catches the appetizing odor of frying ham, the chances are that his mouth will water; the glands have been set to work and the saliva begins to flow as if he were really eating the meat. This experience may lead the hungry tramp to the back door in an attempt to get some of the meat by fair means or foul. Again, a boy looking through the fence at a patch of ripe watermelons is not safe. There is one thing open for him to do and that is to remove himself from the reach of these melons or he will be over the fence. Anger contracts the muscles, while grief relaxes them. The joyous child is inclined to dance and play; the sad person sits demurely

in one place. Fear blanches the cheek, while shame brings a flush of blood to the otherwise pale face.

In Tarbell's "Teachers' Guide for 1908" Henry Churchill King is quoted as saying, "Positive self-control means that we are to heed that principle which the psychologists call impulsiveness of consciousness; that is, every thought, by its very presence in the mind, tends to pass into action, and will do so, if it is not hindered by the presence of some other thought leading in some other direction. I regard that principle of very great importance in all our moral and spiritual life. If you are sitting in the parlor of a friend, while you are waiting for him, and there is an open letter on the table, and you are not thinking particularly of what you are doing but have your eye on the letter, before you know it you will very likely put out your hand, take it up and begin to read it, until you recall yourself with a start. The single idea, unchecked by any other for the moment, was present in the mind; it passed into action almost in spite of you."

Two Methods of Inhibition. — The phase of this subject that interests the teacher is how to inhibit those acts that are detrimental to the school and the individual. There are two ways of doing this; first, by negation, and second, by substitution.

Negation. — The more common method of inhibiting evil acts is by negation. This is where the teacher or one in authority says, "don't" or "you must not," or some other negative command. Mr. Wilkinson, ex-president of the Kansas State Normal Schools, used to tell the story about a little boy, who, when asked at school what his name was, replied, "Johnny Don't." He had heard "Johnny don't" so much at home that he supposed that that was his name. This method of inhibition by negation does not relieve the tendency to act out the im-

pulse; it only seems to dam it up for the time being with the possibility, if not probability, that it will break forth more vehemently than it otherwise would have done. Try to stop a crowd of girls from laughing by inhibiting by negation and see the result. The best way is to let them laugh and laugh until they laugh it out.

Punishment. — It is claimed by some that pain will inhibit certain tendencies; it seems to relieve the tension or inclination and oftentimes effectually inhibits.

Substitution. — The most effectual way of inhibiting is by substitution. By this is meant the replacing of the thought by a thought of a different character, or by letting the impulse work out in a form that will not be harmful. Mr. Keith in his book "Elementary Education" in discussing the subject of discipline gives an example that illustrates this point. A grandfather and two little grandsons were in a railroad station one day with other passengers while it was raining. The water came in under the door and crossed the floor in two or more streams. The little fellows were playing in it and were getting their clothes soiled. No threats or entreaties that the grandfather could make, nor appeals that "Mamma would feel so bad, if they got their clothes wet," were of any avail. Finally a man understanding inhibition by substitution suggested that they walk across the water on their heels, and headed a procession of three around the room walking through the water on heels. This satisfied the boys and did not soil their clothes.

The only true way then to inhibit is by substitution. If one can get the angry man to think about something else, he will cease to be angry. This shows the philosophy of the old adage, "When angry, count one hundred before you speak." Generally by that time the person will be thinking about something else. If the laughing girls

can be brought to think about something serious, they will stop laughing.

Application of Principle of Substitution.—The opportunities of inhibiting by substitution in school government are many. One of the hard things to control is snowballing. This may often be regulated by allowing snow “fights” between certain pupils and on certain parts of the school grounds, with the understanding that the teacher will have the coöperation of the pupils in prohibiting it elsewhere. All that go into the battle must take what comes, and not run to the house for protection.

It will take a wise head to find substitutions for all the impulses that will arise in a vigorous school, but any teacher knowing the principle can make advantageous use of this method of inhibition.

THE USE OF INCENTIVES

By incentives are meant those things which induce desirable school activity, which spur a pupil on to put forward his best effort. For example, emulation sometimes leads pupils to thoughtful, hard study; and the desire for praise from teacher or parent will often lead to good conduct and obedience.

Characteristics of a Good Incentive.—In the first place an incentive should be adapted to the grade of the pupil. A good incentive for the primary grade may not be suited to the higher grades. In the second place, a good incentive takes account of effort and does not recognize results alone. Many incentives are directed toward results only, and no credit is given to the person who has done his best, but has failed to surpass some other. There should be incentives for the slow plodders and the common workers; for there are so many of them, that they

far outnumber the prize-winning groups. The good incentive should be continuous; it should grow in attractiveness from day to day and lead the pupil to advance in his desire to conform to school regulations. Finally an incentive should appeal to the best that is in the pupil.

Incentives of Last Resort. — Under this head are classified the various forms of punishment and the use of sarcasm and ridicule. Such measures should be resorted to only after all higher incentives have failed and should always have for an object to save or better the pupil.

Incentives Liable to Abuse. — There are certain incentives whose degrees of usefulness depend largely on how they are used. The giving of prizes is an example. The objectionable features of prize giving are that it does not take account of effort except as it is shown in results; that it is not a continuous incentive; that it does not develop character; that it is inclined to make the receiver of the prize proud and selfish; and that it often leads to rivalry and envy. However, if prizes are offered in such a way that every pupil may receive one, the giving of prizes may become of real service to the school. For example, if certificates of perfect attendance are offered to all who are neither absent nor tardy, every one is given a chance to receive a prize, the fact that one is given a certificate does not bar another from receiving the same honor. In the same class as prizes, come grades and merit marks, for in nature they are prizes open to all. The principal fault in the use of grades is that too much stress is laid upon them. In trying to determine into what grade a pupil should go, the ultimate question should not be what mark did he get, but will it be better for the child to take this work over again or should he pass on to the next?

It must be kept in mind all the time that grades are simply mechanical estimates made by the teacher, and that no system of grades can be made absolutely accurate. Furthermore, earnestness, effort, and honesty are things that are hard to estimate in per cents, yet they are things more desirable than the scholarship which we often credit with a high grade.

While emulation is an incentive which is often abused, still we need to measure our own efforts with those of our fellows to accomplish our best results. In school work, something of a contest is needed to bring out the best efforts of the pupils. A form of emulation which is applicable to small schools is where a pupil competes with himself. He compares his penmanship of to-day with that of two weeks ago; he finds that in the same time he can work ten examples where last week he could do only five of the same grade; he has been able to go a whole week without missing a word, etc. Thus, in many ways emulation may be judiciously directed for the advancement of pupils and the upbuilding of the school.

Best Incentives. — The incentives which we have classified as Incentives of Last Resort and Incentives Liable to Abuse are, in general, to be used when pupils are not on a high enough plane morally to respond to higher incentives. The teacher must begin on the plane of the pupil's appreciation and strive to bring him to a higher one.

Approbation. — The scholar has fallen very low in the scale of morality who does not care what others think of him. He may not value the approbation of his teacher and his parents, the ones who are most interested in him and whose approbation is worth most to him, yet he values the opinions of his mates. For this reason, one of the very best incentives to cultivate in school is class or school spirit along with a high standard of morality.

Gratification of Curiosity. — In every child there is more or less of curiosity and, if the lessons and school work can be so presented as to arouse this characteristic, it becomes a strong incentive and one that should be cultivated. The writers of continued stories know how to make use of this bent of our natures and close the chapters in the most interesting places. The teacher can use this method in getting scholars to read a new book, as suggested in the chapter on the library. But it is the primary pupils, especially, who will respond to this incentive. They are interested in things that move, — in action, no doubt wondering what the outcome will be. Hence a chart in which the letters may be arranged by the teacher has an interest about it that the ready-made chart does not have. The drudgery of learning words can be enlivened by hunting for the word among a number of other words that the teacher has written on the board; also, by finding two-year-old or three-year-old words, “an”-words, “ing”-words, etc. The ingenious teacher can find use for this faculty in geography and other subjects.

The Satisfaction of Knowing is a direct reward for the labor expended. It is labor paying labor in labor’s own product and thus is the most natural of incentives. When people can be brought to love knowledge for its own sake, they are on safe ground educationally.

Overcoming Difficulties. — There is more or less of pugnacity in all people, and, if this can be brought to service in overcoming the difficulties of the schoolroom, it becomes a powerful agent for good. All like to win, and, if a student can be brought to feel the satisfaction of victory when he has worked a hard example in arithmetic or has mastered a difficult lesson in grammar, he is then putting his pugnacity to good use, a better use than if he were pounding one of his mates on the playground.

Satisfaction of Doing Right. — There is, perhaps, no higher incentive than the doing of right for right's sake. It is not an incentive that little children can appreciate, but, if the upper grades have been properly taught, and have right ethical principles, it ought to appeal to them. The school that will respond to an appeal embodying this principle is an enviable body of young people. They will do the work of the school because it is right; they will refrain from misdemeanors upon the playgrounds, because these things are wrong; they are the making of good citizens and the state can feel that its money has been well expended in their education.

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Chapter XV

SCHOOL ETHICS

THE NEED OF ETHICAL TEACHING

A Call for Upright Men. — The state has a right to expect that the schools will train its future citizens in morals as well as teach them concerning the secular affairs of life. The state is as much interested in an obedient, upright citizen, as in a well-informed citizen. It needs men with deep convictions of moral right and wrong. Men have too long worshiped the person who has been successful financially without asking whether he acquired his money by fair means or foul. To win, by fair means if possible, but win, has been the prevailing policy in college athletics and school games. There is an awakening along these lines in the political world, and it is high time that there be an awakening in the schools; for there is a call for men who can play fair and deal honestly. The state needs such men in politics, and it has a right to expect that the schools will do their part in furnishing them.

Moral Teachers. — The place to begin this moral training is with the teacher. If the teacher is immoral, there is little use for him to teach morals in school, for he will be but "sounding brass and a tinkling cymbal." The oft-quoted lines of Emerson fit well here: "How can I hear what you say while what you are thunders so loud in my ears?" The teacher with a strong personality and

an upright character can do more for character building than all the ethical codes and formulas that may be printed. It is the living teacher that is so important in all school work. Again and again this thought must be reiterated and the burden of the success or failure of the school must be laid upon the shoulders of the teacher. It has been said, "As the teacher, so the school," and the truth of this statement is being verified in thousands of instances every year. In some way good schools seem to follow certain teachers, and poor schools are in the wake of other teachers. While the statement about Mark Hopkins and the log was not made to disparage the idea of good schoolhouses, it was made to emphasize the importance and influence of a good teacher. A school board can well afford to inquire into the character of the teacher that they are about to hire; for a teacher with convictions that he is ready to stand for, and discretion enough to know when and how to act is worth more to a district than a college graduate without any definite moral principles.

METHODS OF ETHICAL TEACHING

Unsuccessful Attempts. — American teachers have succeeded in teaching primary subjects, geography and history, but they have not been so successful in teaching ethics in the common schools. The reasons for this are various. The first is because they have not tried very hard. They have not felt the need. Of course, they have acknowledged that ethics should be taught, but have not realized the necessity of teaching this subject as much as they have that of teaching physiology, history, reading, etc. In the second place, they have failed because, when they did attempt to teach ethics, they did it in a formal manner, and boys and girls felt that they were being

“preached at,” and revolted and set themselves as flint against the truths presented. There was no attempt to connect this teaching with the every-day affairs of life, no call to put the truth of these lessons into practice. It was dry formalism, and it failed to accomplish the results desired. Then again, teachers have failed because they went to the other extreme and said that all teaching of morals should be informal; that, when the truth presented itself in the regular lessons of the day, they would take it up; that, if a difficulty in the schoolroom or on the playground called for the teaching of a certain moral truth, they would then present the principle underlying and give the requisite instruction. In other words, they wait for the occasion to direct them as to time and subject. This is in part a good plan, if it were carried out; but it is easy to neglect the occasion, and hard to break away from the regular program of the day to teach a lesson in morals. Then, too, the school may not bring out all the truths that one should teach. It is easy to neglect those things for which we do not plan and for which our daily program does not call.

Making Use of Incidents. — A teacher ought to step aside from the daily routine when occasion suggests, to teach some important moral truth. A wreck on the railroad may present the opportunity for teaching a lesson on obedience to orders, or carefulness, or exactness as the case may indicate. Some transaction at school, if it is not too personal, may give an occasion for a talk on neatness, or some other of the school virtues. At opening exercises in the morning or at noon, or it may be at the close of the recess period, will be the proper time to bring the subject to the attention of the school.

A Formal Plan Desirable. — While the incidental plan should not be lost sight of, some more formal plan of

teaching ethics should be adopted. There was a time when all the up-to-date schools were teaching spelling incidentally. There were no spelling books used, but words were selected from all the lessons, and spelling was made a part of every exercise. The plan seemed to be good, but it did not work; or, perhaps, it is better to say the teachers did not work it, and they turned back to the spelling book again. So with ethics, some definite plan or formal outline must be incorporated into the course of study or little or nothing will be accomplished.

Right Thinking. — In order to get pupils to act right it is necessary to get them to think right. If you can influence people to think good thoughts, you will have no trouble with their outward actions. Many are inclined to believe that it does not matter how one thinks so long as he acts right. They forget that thinking is father to acting. As a rule we do not do those things to which our thinking is all averse. We sometimes do things under the impulse of the moment, in a flash of temper, that we would not do were we calmly to think it over; but even then, if we analyze these deeds closely, it will be seen that they bear some relation to our thinking.

How to Get Pupils to Think Good Thoughts. — Then the question is, How shall the teacher get the pupils to do pure thinking? First, the pupils should know this truth, "Thoughts are things." Next, they should be given material for good wholesome thoughts. There are many short selections of poetry, which contain elevating thoughts, that may be learned by the whole school and recited as a part of the opening exercises. As far as possible, keep from sight ugly pictures, especially those which suggest immoral thoughts. This suggestion applies to word pictures as well as to other pictures. See also the suggestion given by Mr. Turner in his "Recess

Gang" in the chapter on Play and Playgrounds. The immoral stories of one boy on the playground or on the road to and from school will poison the minds of every one with whom he may come in contact.

The teacher has not done his whole duty until he sees that the outhouses are clean from all immoral pictures and suggestions. It is necessary to keep the mind pure as well as to feed it with pure thoughts.

Time an Element. — One of Miss Brownlee's ideas is to keep a subject before the mind for a month; for example, she takes kindness as the subject for September. The quotations are all about kindness, the motto is kindness, and for the whole month the moral teaching is about kindness. She takes a division of the subject for each week; first week, kindness to parents; second week, to the teacher; third week, to brothers and sisters and associates; fourth week, to animals. Thus the whole month is spent on the subject of kindness, and the impression is deepened and the moral concept is broadened as it could not be if these lessons were given haphazard. She follows this month's work on kindness by cleanliness, obedience, self-control, courtesy and cheerfulness, work, honor, honesty and truthfulness, and clean language for the respective months of the school year, keeping each thought before the minds of the pupils for the required time.

Value of Opportunity for Expression — All moral training will be more or less a failure that does not provide for an opportunity to put the teaching into practice. One may talk all he pleases about kindness, but unless he gets his pupils to be kind to some one or something, he will leave no lasting impression. They must be encouraged to be kind to father and mother, to teacher and others, to do little acts of kindness to playmates and

pets, that they may make the moral growth desired. The same truth holds good here as in school government; we need to inhibit the evil acts and encourage the good ones. If the tendency to do kindness is inhibited, the desire is lost and it becomes moral degeneracy rather than moral growth. Some one has said that an evil effect of the theater is that it arouses our emotions but gives no opportunity for giving practical expression to the emotion. For example, we see pity depicted on the stage and we are constrained to relieve the distress, but when the play is over, we awaken to a sense of the conditions and realize that it was all a play and our emotions were for naught. The feeling was inhibited, and the next time it is harder to arouse the sense of compassion. The month that cleanliness is taught will avail but little unless the boys and girls come with cleaner hands and faces, and unless the floor is kept cleaner than usual. It should be a time for everybody and everything to be clean. Cleanliness should be the motto; it should also be the subject of short morning talks. Keep the subject constantly before the minds without making it offensive. Think it, talk it, practice it.

Encouraging the Pupils to do the Talking. — That the pupils may not think that they are being “preached at,” it is a good plan to have them do most of the talking. They have ideas on moral subjects and often very good ones, and if they may be led to express these ideas, it will be better than for the teacher to do all the talking. Indeed, the teacher should not do a great deal of talking; a short talk of five minutes in the morning will be better than long-drawn-out lectures on a subject. These long talks were what weakened the influence of the old time method of moral instruction. This is the preaching that all pupils dread. Lead them to do the preaching.

The following is quoted from the Course of Study in Ethics for the Public Schools of Kansas: "The child may resent having a moral drawn for him which he can draw for himself. He is more likely to follow the principle which he himself discovers or formulates, because it is his own." Miss Brownlee has a very pretty device for teaching the little people ethical truths. She tells them that they have a servant that ought to be taught to obey them, — it is *body*. *Body* does not always do as it should; it does not keep its hands clean; sometimes it eats too much, and again it will not go to bed when it is time, etc., but they can make *body* obey, if only they keep trying.

This device is all right for little folks, and, if they are instructed in the presence of the older ones, these in turn will take the lessons to themselves. The suggestions given in the following topic will apply more particularly to the older pupils.

The School City. — It is possible to introduce some of the features of the School City into the rural school. Briefly stated, the School City is an organization in the school in which the pupils elect a mayor, a city clerk, and the other officers of a city from among their own number. Sometimes these officers are the governing body of the school; in other instances they have certain duties and responsibilities, but these do not extend to the controlling of their mates nor to the making of rules and regulations for the school.

The Plan in Operation. — In the model rural school maintained by the State Normal of Kansas during the summer of 1910, Mrs. Emily K. Hoelcel, the teacher, used some such plan as the following. One girl was a committee to see that there was some one to sweep and keep the house clean. All who were old enough to do

this work were given lessons in sweeping and dusting. This instruction was a part of the domestic science teaching, which consisted of lessons in sewing, folding and brushing of clothes, very much about cleanliness and a little about cooking and serving. One afternoon the teacher and pupils served a light lunch to the parents of the district. This organization for work extended to committees to look after the cloakrooms and furnish water and carry out the slops. On the playground there were captains for each of the swings, one for the "slide" and one for the "giant's stride;" captains for the ball games and other games and plays. There was a sanitary commission whose duty was to look after the grounds, water the flowers and keep the outhouses clean. The children took great interest in these matters and it was surprising how much was accomplished in two months in the way of better sentiments and higher ideas.

Responsibility and Coöperation. — It is of great importance to place responsibility upon a pupil commensurate to his age and judgment. It is often the very best thing for a bad boy, who is accustomed to breaking the rules of school and of play also, to give him charge of a swing and let it be his place to see that all have equal opportunities and that each one gets his turn to swing. If it is his business to see that there is fair play in the game, it will lead him to look at right and wrong from a different standpoint and change his own acts in accordance with his new ideas of thinking. Coöperation in the management of the school, whether it be in keeping the house clean and decorating its walls by hanging a picture; beautifying the grounds by planting a tree, a shrub or flower; raking the yard and burning the trash; or assisting in the government of the school by seeing that there is fair play in the school games, is of intrinsic value.

To lead pupils to feel that the school is theirs and to desire to make it the very best possible, is worth more than many lessons learned from books. Another good thing about this coöperation is that it is reactive; the pupil, when he becomes imbued with the spirit, is willing to do his work in the schoolroom.

Wise judgment and careful management are needed to put these plans into operation. The teacher who tries to get his pupils to do the sweeping so that he may be saved this drudgery, or the teacher who is unwilling to take hold of the broom in order to show a pupil how to sweep without making a dust, or even do the work himself if circumstances seem to justify, need not try this plan. The plan of having captains on the playground, in order to save the teacher the management of them, will fail. In this idea, there is no place for selfishness. It is utilizing the individual for the good of the whole school. Its great lessons are unselfishness and the dignity of labor; and the teacher who is afraid of work, or who tries to introduce it from selfish motives, had better leave it untried.

Influence of Heroes. — There are still other means that may be found for the special instruction of older boys and girls. Mr. E. T. Fairchild, State Superintendent of Kansas, has prepared and distributed throughout the state an excellent course of study in ethics, from which the following quotation is to our purpose: "Each school study has a specific moral value. Literature and history embody in concrete form moral facts and principles, showing to the child his own self, 'writ large,' furnishing him with ideals and incentives, and molding his moral judgment; and they will accomplish these results the more surely as the teacher is himself moved by that which is presented. Every subject involving observation and expression is essentially moral. Every subject, therefore,

should be so taught as to make for truth-telling in word and act, and for training in self-expression."

This suggests the method to be pursued. The heroes of history and literature furnish the basis for a great deal of moral instruction for older pupils. If a boy can really be interested in Lincoln, in his struggles for an education, in his combat with poverty, in his battle with slavery and the forces which opposed him and in his life-long effort to bring out the best there was in himself, he will be led to be a better man with higher ambitions and a stronger determination to fight against the vicissitudes of life. History is replete with examples of heroes and men and women of noble lives. Here may be found examples of almost any of the virtues as well as the vices of mankind. However, it is always better that the teaching be positive rather than negative; in other words, it is better to commend the virtues of men rather than to condemn their vices. History nowhere furnishes better examples of upright characters than in the lives of Abraham, Joseph, Moses, and, above all, in the life of Christ.

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Chapter XVI

AGRICULTURE IN RURAL SCHOOLS

OVERCOMING OBSTACLES

Difficulties. — Sympathy should be extended to those teachers who say that they have a hard time to get all of the work done that is now outlined in the course of study, without adding a new subject. Those who are in close touch with the work being done in the rural schools know that much of the work is but poorly done and that the teachers are not prepared to teach the subject of agriculture.

But if agriculture has a body of truth suited to school instruction, room will have to be made for it and teachers will have to be trained to teach it. That the Agricultural Colleges and the Department of Agriculture at Washington have gotten together a great body of knowledge that is worth the farmer's knowing cannot be denied, and much has been put into textbook form so that it may be taught in our schools. It is only a question of time until this knowledge will be adjusted to the needs of the schools.

Nature of Material Suited to Rural Schools. — Our first textbooks in physiology were very different from what they are now, and even the last few years have seen a great change in the subject matter used. Formerly, much time was spent in learning the names of bones and muscles; now hygiene and sanitation are centers of at-

tention. So it will be with agriculture. It has been handed down from the colleges and it has been too technical and scientific for the rural schools. It must be elementary and practical.

Farmers are inclined to think that a woman cannot teach a boy how to farm and how to raise hogs. And there is some truth in this; but as a woman can teach certain laws of health and certain truths regarding sanitation, so there are certain truths of agriculture that either a man or woman can teach. As was said above, these truths must be elementary, such as can be put into a textbook and will yield to the textbook method of teaching. The rural schools are not equipped to do laboratory work and will not be for years to come. There are facts that can be presented in school and that pupils may observe in the field, the garden or barnyard. These must relate to plants and other vegetation, farm animals, and insects that help or hinder the farmer. Nature study has only to be given an agricultural trend to answer the purpose of agriculture for the lower grades. A text containing a little more advanced material comprising the elements of botany and zoölogy, and possibly something of chemistry and geology, presented in common terms and simple language, should be used for the higher grades.

Things Which Can be Done. — In spite of obstacles there are a number of things which an earnest teacher can do to encourage the study of agriculture in the community and among the older boys and girls. The Department of Agriculture at Washington publishes numerous bulletins on various subjects pertaining to agriculture. These bulletins may be had for the asking. They treat not only of agriculture but also of dairying, chicken raising, bee culture, stock breeding, etc. The teacher can get a number of these and lend them to persons interested

in these subjects and encourage them to send for others on their own account. The agricultural colleges also are sending out bulletins, and in some cases are even sending out members of their faculty to give lessons in agriculture and conduct classes in domestic science and household economy. The teacher who keeps informed of and in touch with these movements can do much by interesting the community in them.

OUTLINE OF WORK FOR A RURAL SCHOOL

Professor H. L. Kent, of the Extension Department of Kansas State Agricultural College, gives the following outline of what can reasonably be accomplished in agriculture during a seven months' term in a rural school:

"So long as we can have but one year of agriculture in the grades, this one year of work must deal very largely with fundamentals and general principles. It can not and indeed should not deal with specific rules for various practices and specific information about various crops. If the proper kind of nature study be done in the lower grades much of the foundation work may be taught before the work in formal agriculture is begun.

"The work must be applied locally and in this way the general principles may be illustrated and applied most effectively. These principles should whenever possible be illustrated and applied to special crops, as corn, oats, wheat, apples, sorghum, etc.

"The work must follow the order of the seasons so that the teacher may secure materials and apply the subject matter. It must not be wholly a textbook course, but it must be more a study of things. The barnyard, the orchard, the field, and the feed lot must constantly be sources of information and illustration.

"The following outline will give an idea of how the above principles may be applied. It is arranged for a seven-month school. For longer terms, more time should be given to each month's work.

"First and Second Months. — General principles of plant growth and structure: Flowers and fruit formation, roots and their work, leaves and their work, stems and their work. Special topics: budding, insect studies, weeds, propagation of plants and fungous diseases. Use important crops of the locality for illustration while teaching the above.

"Third and Fourth Months. — Relation of live stock, farm crops and successful farming. Domestic animals and their improvement. Study breeds, market, classes, types, feeding, caring for and marketing the following: hogs, horses, cattle (including dairying), sheep, poultry. Special study of animal feeding (connect with plant growth and storage of food.) Make live stock surveys of the district.

"Fifth Month. — Soils, soil origin and soil types, soil air and water, relation of plant to soil (recall and review work of first two months), soil management, tillage and its effects, fertilizers, use and application. Continue field and laboratory work.

"Sixth Month. — Seeds, seed selection, seed testing, germination and germination requirements, preparation of seed bed, planting and managing the hotbed. Wherever possible there should be a hotbed on the school grounds. Gardens and gardening should be emphasized in connection with this month's work.

"Seventh Month. — Continue work with hotbed as laboratory and review work. Grafting, pruning, tree planting, yard improvement, garden work, insects and spraying, birds and crop-planting calendar should be

worked out. If possible include time, amount of seed and preparation of seed bed for each crop. This must be brief, a ready reference compilation."

A LESSON PLAN

The following lesson suggestions by Professor Kent fit in with the outline for the sixth month. By making similar lesson plans for the other topics of the outline, the teacher can make agriculture a most interesting and profitable study.

"How the Seeds of Plants are Formed. — Although this is called a lesson plan, it may require several days to teach it.

"Introductory. — Why do plants need seeds? To continue life of plant through the winter; to increase the number; to spread more widely over the earth.

"What kind of plants produce seeds? Only mature plants which bear flowers. (Toadstools, puffballs and molds bear spores, dustlike particles, in place of seeds.)

"Use of seeds to farmer: feed for animals; for new plants or crops.

"Kind of seed the farmer wants: many; large; seeds with food that tastes good, for feed; good seed from good plants, for planting.

"Use the corn plant to learn how seeds are produced. Find late corn stalks with tassel and silk just shot. Take these to schoolroom for use of pupils. Try to have one for each pupil.

"The Tassel. — Describe it. Carefully pull some of the little green scales apart. What is found? How many? Color? Shape? Have pupils ever seen these in the field? They are called stamens. What do they contain? (Try to get a mature tassel and dust pollen on a dark surface.)



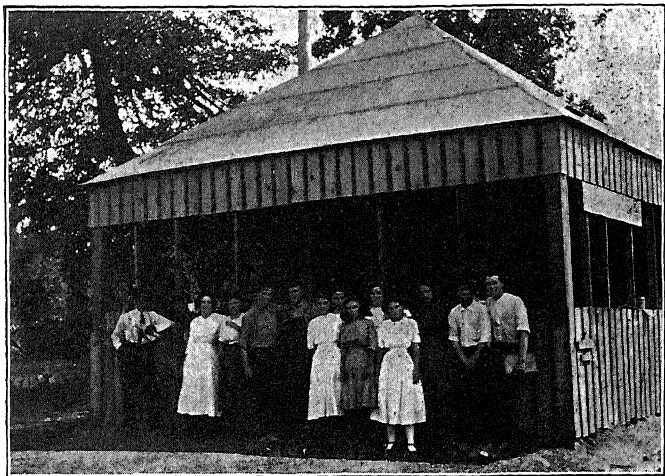
CHILDREN WITH FLOWERS AND VEGETABLES RAISED IN THEIR GARDENS

The corn tassel is a cluster of flowers. It is the function of these flowers to produce pollen.

"The Ear. — Strip off the husks carefully. Do not injure the silk. Tell what you see. (Describe the ear.) Kernels — size, hardness, etc. Where does the silk start? How does it differ there from at the tip of the ear? The ear is another cluster of flowers. Each silk and "baby" kernel is a part of one flower called a pistil. The end of the silk is slightly rough for an inch or two.

"Summary. — Kinds of flowers on corn plant. What each flower bears. Where each is found on stalk. How these differ from other flowers.

"Questions. — Is it necessary that a part of a plant be bright-colored to be a flower? What is necessary to make it a flower? Name some other plants which do not have bright-colored flowers.

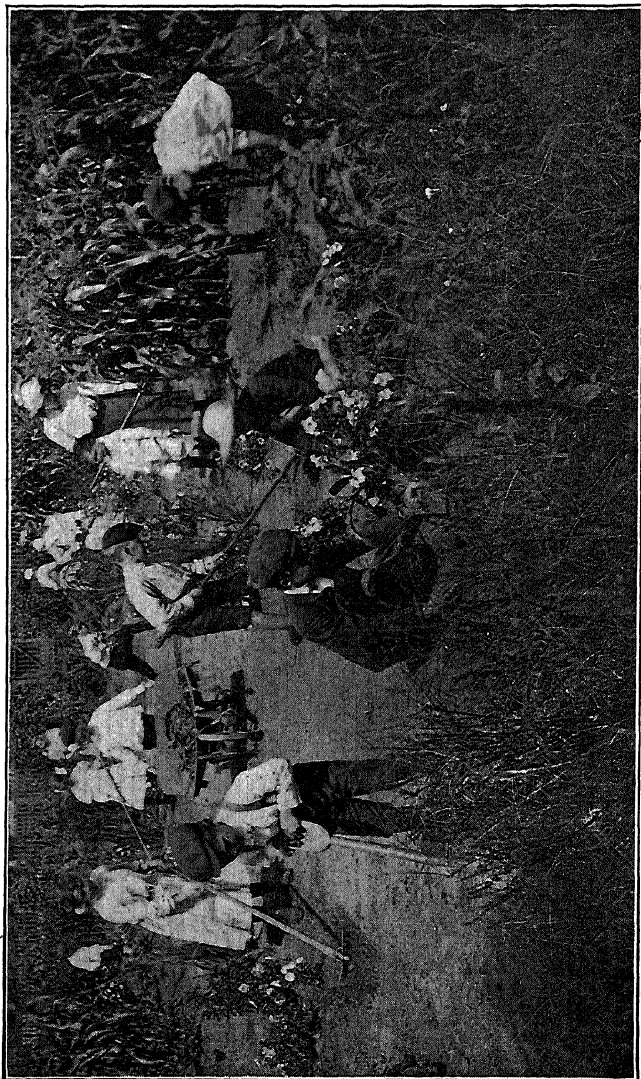


A SCHOOL CANNERY

Note. — No recitation in agriculture on the following day, but for drawing and grammar or English lesson pupils draw (from objects) the things studied the day before and write a description of them. Insist on plain, unshaded drawings. Criticise language, capitalization, punctuation, etc.”

SCHOOL GARDENS

In the northern states, from the fact that the school terms extend over that part of the year in which gardens do not usually grow, and from the fact that the teachers lack a knowledge of the subject and that patrons are prejudiced against the introduction of the study into the school curriculum, not much has been accomplished in school gardens in our rural schools. In the southern states, weather conditions are more favorable, and better



CHILDREN AT WORK IN A SCHOOL GARDEN

results have been attained. In either section the most successful work is being accomplished by getting pupils interested in raising gardens at home. Sweet potato, tomato, cabbage, and lettuce plants may be raised in a hot-bed on the school grounds. The plants are then taken home and set in a garden there.

A Canning Outfit. — An almost necessary supplement to gardening of this kind is a canning outfit. The boys and girls must be able to dispose of their products or they will soon lose interest in raising them. Through the direction of the Department of Agriculture very successful experiments are being conducted along these lines in the South. Pupils are raising tomatoes at home and canning them in tin cans for the market. A canning outfit is bought by the district or loaned by the county or parish. In some instances government, state, or county experts visit the community and show the people how to use a canner.



LOOKING OVER HER CROP

A Winter Garden. — A firm in Louisville, Kentucky, is manufacturing a double glass sash for hotbeds and cold frames. When made according to directions, these hotbeds will withstand zero, or even colder, weather without freezing. These winter gardens have been tested in many parts of the United States; and lettuce, radishes, onions, and other hardy vegetables have been grown



A CORN CLUB MEETING

through the coldest winter weather. The usual size of the sash is 3 by 6 feet, and it sells for \$4.20. For ten or twelve dollars a school can equip a small hotbed of this kind, and by this means maintain both a fall and early spring garden.

CONTESTS AND CLUBS

About the best results are being attained in the teaching of agriculture and domestic science through the corn growing contests for boys and the cooking and sewing contests for girls. These are usually conducted by the county superintendent or the agriculture society of the county, but the teacher can encourage the pupils to enter and do their best for the honor of the school and neighborhood. In Nebraska, under the direction of former State Superintendent E. C. Bishop, much was accom-

plished by the organization of clubs for consideration of various subjects. Numbers of young women banded together for the study of domestic science or household economy, and by the perusal of bulletins, by meetings and discussions, by actual practice and demonstrations much interest was aroused and much useful knowledge was gained.

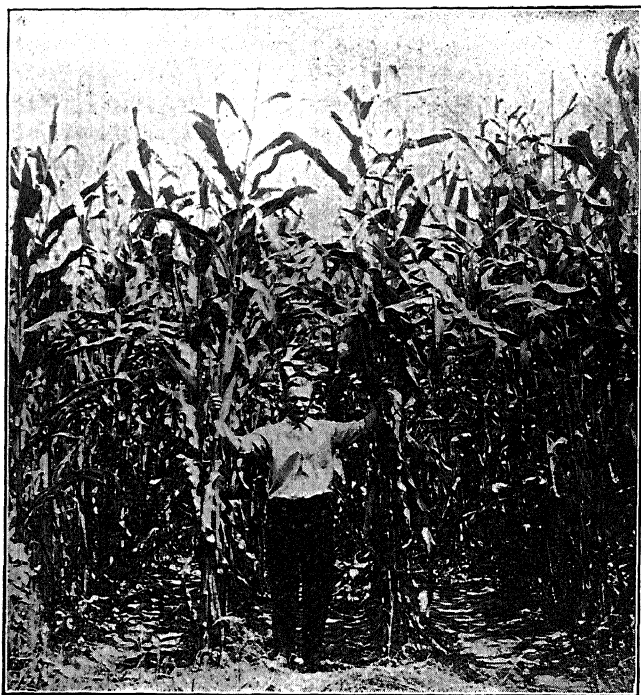
An Example. — W. M. Oakerson, County Superintendent of Nodaway County, Missouri, gives the following report of agricultural and domestic science contests, conducted by him. "A few years ago, we decided that in Nodaway County, Missouri, we could secure greater interest in farm work among the boys by inaugurating a corn growing contest for the boys, and that we could secure greater interest among the girls of the county by inaugurating contests for them in cooking, sewing and other home work. We believed then, and are now convinced, that these contests would tend to do the following:

"1. To stimulate and direct educational progress along practical lines.

"2. To teach such scientific facts in reference to agriculture and domestic science as will stimulate habits of observation, that will enable boys and girls to recognize good and bad qualities in their products, that they may learn something of the value of labor and the cost of production, that they may be encouraged to read good literature, that their views may be broadened and that they may be prepared for useful citizenship.

"3. To utilize the natural love of young people for competition and cause them to put forth greater energy and activity for advancing their own education.

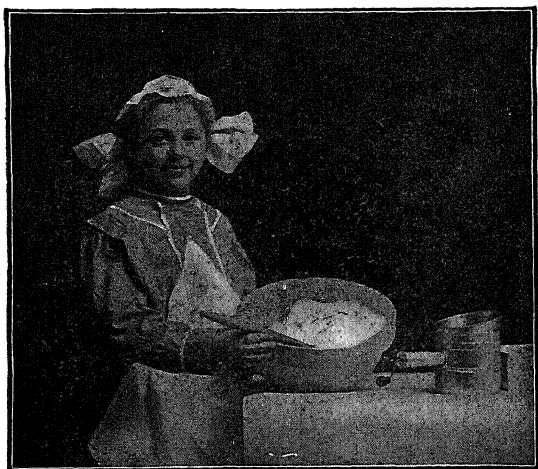
"So each year we raise from \$800 to \$1000 to be used in giving prizes and forwarding the work. All boys and young men from 10 to 20 years of age who desire are en-



A CORN CLUB BOY AND HIS CROP

rolled in these contests, and certain rules are given them by which they must abide. The girls are enrolled for doing work in domestic science. We usually have about 400 boys enrolled in the corn growing contest, and about 600 girls enrolled in the domestic science contest. Prizes are given to the boys for the best ten ears of white corn, the best ten ears of yellow corn, the best 20 ears of white corn, the best 20 ears of yellow corn, the best ear of corn, the best kept record book, the largest acre yield of corn and for the best corn judging. The boys are divided into

two classes according to age, those from 10 to 15 forming one class and those from 16 to 20 forming another class. This is to give the younger boys a chance to compete with each other and not require them to compete with the older boys. Instruction is sent to the boys from the office of the county superintendent, the Department of Agriculture of the State University, and the U. S. Depart-



MAKING A PRIZE LOAF OF BREAD

ment of Agriculture. This instruction tells the boys how to select their seed corn, how to prepare the seed bed, how to plant the corn, how to cultivate the corn, and how to care for the crop. The corn judge who has been with us from year to year says there is a vast difference in the boys' ability to select and judge corn now and at the time we began this work. It not only arouses interest among the boys, but when you have the boys interested, the parents become interested also, and while the object of

this work is to improve the boys, it is also proving beneficial to the boys' fathers.

"The girls are offered prizes for such work as the best work apron, the best fancy apron, the best shirt waist, the best dressed doll, the best loaf of bread, the best butter cake, the best sponge cake, the best can of fruit or vegetables, etc. For different years different products may be worked. Instruction is sent to the girls which is prepared by the Home Economics Department of the Maryville State Normal School and by the U. S. Department of Agriculture.

"This work is done through the teachers of the county. The teachers enroll the boys and girls in the work and give them instruction in it. We believe that this is interesting the young people of the county in the farm work and that many of them will be kept on the farm, while without this work they would not. It is not difficult to keep the young people on the farm if we can really get them interested in the work there."

THE VIEW POINT OF THE COUNTRY

If authors of textbooks and courses of study would recognize more fully the law of apperception and that there is a certain amount of local significance that should enter into every course of study, much could be done for our rural schools. This would, doubtless, require a different textbook and a different course of study for the rural schools from that used in city schools. Too much of the work in our books and courses of study is based on the supposition that pupils have had the experiences of city life rather than the experiences of country life. The pupil interprets new experience through the old, and this law should be recognized for the farmer's child as

well as for the merchant's child. The teacher can do much along this line by making some changes here and there in the textbooks and courses of study in order to make them conform to the needs of the locality. For example, if the community is a wheat-growing region, the study of wheat and its products should enter largely into the work of the school. Here is a place to begin, for the pupils probably know something about wheat growing and they can be interested in this for a starting point. If our teachers would teach more about the country and less about the city; if they would set forth the health of its pure air, the beauty of its landscapes, the cooling freshness of the timber's shade, and the enchanting attraction of the babbling brook; if they could show that toil is honorable and that farming is a worthy calling — the most independent and honorable on earth; if they could show the boys and girls that there is need of men and women of brains to till the soil and raise the poultry and live stock of the farm; in short, if the teachers could lead the boys and girls to appreciate and respect farming, they would have done their share in teaching agriculture in the rural schools.

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Chapter XVII

DUTIES OF THE TEACHER

TO THE DISTRICT

To Protect Property. — In the minds of some, “Public property is my property, especially if I want to destroy it.” This thought or some kindred one leads to the wanton destruction or mutilation of a great deal of public property. It is the teacher’s imperative duty to protect the district’s property; not simply by force of arms, but to instruct pupils and instill into their minds a regard for public property. This instruction should take broad grounds and teach care for all property both public and private. Pupils should understand that they ought to care for their own property, too; that the mere fact that they own a thing is no reason why they should destroy or mutilate it. Boys are more inclined to destroy things than girls are, and it takes many lessons to teach them otherwise. This teaching should lead to lessons in economy, care and regard for a book, economy in the use of pencils and tablets. There is no reason why an example should begin in the middle of a page and all the remainder of the page be wasted. Often a few scribbles on a page destroy it for any other purpose. These are small matters but serve as a basis for lessons in economy.

Playing in the house leads to the injury of the school furniture, as one of the least of its results. Careless

throwing of stones, balls, and snowballs is the cause of many broken window lights. As a rule, pupils should stand the expense of their careless and wanton destruction of property.

Another way in which much public property is damaged is by defacing with knife and pencil. It is hard to keep teachers during institutes and other teachers' meetings from marking on the desks with pencils; after the pencil has done its work, the boy with his knife completes the rude and destructive decoration. The best means of preserving school furniture from this mutilation of pencil and knife is to keep the desks and chairs well cleaned and varnished and then watch for the first pencil mark. Hold a pupil responsible for his individual seat. He should keep it from day to day as clear of marks as it was the day he first received it.

In this respect, the most difficult task is to preserve the outbuildings in clean and wholesome condition. This becomes doubly difficult if the teacher be a young woman. But these are the source of much evil, and the teacher, man or woman, must face the responsibility. The teacher can keep track of the condition of these places, and if the remedy seems beyond her reach she can appeal to some member of the board through his wife, if necessary. No such difficulty confronts the male teacher, and he will have no excuse for neglecting his duty in this respect.

If school officials could be brought to understand that property well maintained will command respect and will be less liable to abuse, it would make it much easier for teachers to protect school buildings and their equipments. The outhouse that is well cleaned in the fall before school begins, and from which all marks, obscene language and pictures are erased or removed by a coat of paint, will be much more easily kept clean. It would be hard to find

any one who would go into a schoolroom or office and with knife carelessly deface a new and brightly varnished desk or chair. Seldom could a man be found who would go into a merchant's office and thoughtlessly cut his desk or chairs, but there is many a man who will sit in front of his store and whittle his boxes to pieces. Not often will a boy be found who will cut a notch in a brightly varnished seat, but there are many who have rudely carved old, rough, unpolished desks and gave little thought to what they were doing. The best way to protect public property is to keep it in repair and well painted or varnished.

To Maintain the Good Name of the School. — As a rule, the patrons of a district take pride in their school and are pleased to learn of its success. The new teacher coming into the district for the first time should take advantage of this feeling and try to make this year's school add to its already good reputation. It often takes tact and enthusiasm to get the coöperation of the pupils. They sometimes think that it is their place to work against the teacher and make the school as poor as possible, but the really tactful teacher can change their minds and transform this opposition into coöperation.

The teacher can generally get this coöperation and succeed in building up the school by presenting the truth of the matter just as it is. Pupils should be very much interested in the school. It is for them and not for the teacher. He gets his salary and, perhaps, some reputation; they are getting their preparation for life; and, if the school fails, they fail. The presentation of such truths as the above will often gain for the teacher a majority of the school, and, if the teacher is wise, he will use this majority for building up sentiment for a good school. Where this cannot be done, the teacher must not despair, but try some other plan.

Another way of building up school spirit is by contests with other schools. These contests may be in the nature of ciphering matches, spelling contests, or some form of athletic sport. Perhaps nothing will build up school spirit more than a good team of some kind. It may be a basket ball team, a baseball team, a track team, or a spelling team. The only trouble with these team contests is that they may absorb all the energy of the school and thus defeat the very object for which the school is striving. There should always be a rule that no one can play on a team who does not keep his school work up to grade.

To Teach a Good School. — In the chapter following we shall speak of teaching a good school as an opportunity; here we wish to present it as a duty. That the teacher should give the best that he has, cannot be emphasized too strongly as a duty, nor held out too invitingly as an opportunity. His energy, his personality, and his life with the best that it contains should be put into his school. School teaching is not shoveling dirt, it is not plowing corn, it is not merely making money. It is more than any or all of those. It is building lives, not for time but for eternity. The work should be faithfully and thoroughly done.

Tests of a Good School. — Some may be helped if they see more clearly what is meant by a good school, hence a number of tests of a good school will be enumerated. These are more or less outward tests and neglect that inward spirit or bond of sympathy which sometimes exists between the teacher and pupils and makes a fairly good school out of what otherwise would be a very poor school. The following are tests of a good school.

(1) *Orderliness.* — By this is meant a school that does things systematically, has a program and follows it, has an orderly way for the classes to pass and maintains that

order. Everything is done "decently and in order." Of course, an orderly school will be a reasonably quiet school. The quietness is a result of the order, and not order the result of the quietness; for we can imagine a very quiet school that is not orderly. An orderly school is the result of system. It is worth while to be systematic in school work, not simply for order, but for the lessons it teaches the pupils. The teacher, who keeps his desk in order and requires his pupils to do the same, who is careful and neat in all work that he puts on the board and requires pupils to be the same, who is systematic in all the arrangements of the school, will teach lessons that will be practical and worth more than many of the lessons learned from a textbook.

(2) *Punctuality*. — In the second place, a good school should be punctual; not only should it do things in an orderly manner, but it should do them on time. School should begin on time, close on time, have recesses on time, call classes on time, do everything on time. This is another of the practical lessons that the school should teach. The element of time enters into every transaction of business, and the business man who has learned to be punctual in boyhood has the advantage over the one who has to learn this in the school of experience. In order to be successful, the business man must be punctual, his obligations must be met on time, — not a day or two late.

One of the sins against punctuality is tardiness. This is one of the school evils, and one that is hard to break up in some localities. It is a detriment to the school in that it disturbs the progress of the work and distracts the attention of the whole school for the time being. It is one of the evils against which every school should contend and against which the good school is more or less successful. How successfully to prevent tardiness is a question

that has never been answered to the satisfaction of teachers. There have been many devices offered, and some of them have been quite effective under certain teachers and under favorable circumstances. These devices take the form of (a) *punishments*, (b) *attractions*, and (c) *senti-ment*.

(a) *Punishments*: Some have the rule that every one who has been tardy must make up the time after school or at recess. This conforms to the rule for punishment, viz., that the punishment should be a sequence of the offence. While this punishment seems just, it has its faults and does not always accomplish the result desired. The trouble is that it deprives the pupil of his playtime and all that this means to the growing child, and yet does not always punish the guilty party, for it is often the parents who are to blame. Some teachers have imposed certain tasks such as writing lists of words, or committing to memory certain poems or other selections. This is a very pernicious custom, for learning should not be classed with punishments but be made enjoyable and attractive. One may have the pupil make up his lesson as a concession on the part of the teacher for the good of the pupil, but not as a punishment. In prescribing a punishment for tardiness, the teacher should be sure that it is the pupil who is to blame and not his parents. Many teachers require written excuses from the parents for tardiness. This is something of a punishment of parents who have to write them. In a rural district where the people are not used to this requirement, it will be well for the teacher to consult with the board before trying to enforce it.

(b) *Attractions*: Some are quite successful in making the opening exercises so interesting and so attractive that pupils are loath to be absent from them. This may be done in various ways. Some read an interesting book,

others make the opening exercises attractive by having a program made up of songs, stories, recitations, current events, or quotations. This method often succeeds well, as it reaches the parents in an indirect way, when they are the ones at fault. If one can interest the children, through them he will interest the parents also, and thus bring about an earlier hour for breakfast.

Many county superintendents are using perfect attendance certificates. These consist of three grades of certificates: first, those which are given at the end of each month to those pupils who have been neither absent nor tardy for the month. When any pupil gets six of these, the county superintendent issues to this pupil a larger certificate. Again, when he has received three or four of these large certificates, he may present them to the superintendent and receive a large diploma which he can frame and keep as a memento. This system has been found quite successful in preventing tardiness and absence.

(c) *Sentiment*: But if the teacher can build up a sentiment for punctuality, he has done something lasting and of real benefit to the individual pupils of the school. A sentiment can be aroused by presenting the business necessity of being punctual. A man once asked for an interview with the president. He received the terse telegram "To-morrow at ten." He had barely time to catch his train and arrived in Washington at nine o'clock and made his way immediately to the White House. When he finally gained admittance to the president's private office the clock was striking ten. After his interview, he asked the president what would have been the consequence had he been late, and was told that he could not have gained a hearing, for the president's time was all allotted, and each one must use his allotted time or be refused an audi-

ence for that day, or, perhaps, for several days. The earnest presentation of the importance of being on time should accompany all efforts for the prevention of tardiness. It is sometimes a habit that takes time to overcome, so that the teacher who does not succeed at first should not become discouraged.

(3) *Respect.* — The good school is a respectful school, respectful to the teacher, respectful to old people, respectful to one another. One of the first things that an American boy should learn is to respect the rights of others. Some never learn it, and if our country were made up of such people, this would be a poor country in which to live. The conditions in many homes are not suited to teach this lesson in its concrete form. In the common schools, where every one is on a common footing, the child should early learn this lesson. The playground often teaches this lesson in a forcible manner and the teacher should see to it that fair play and equal rights are its code.

In these days of soft discipline, parents are often lax with their children and do not require respect for elders; indeed, it is often true that the child demands subservience to his will. It is said that Dr. Arnold of Rugby permitted the "fag" system in that school for the good of the "fags." These new boys that entered school came from homes where they were petted and pampered by servants and made to believe that they were "lords of creation." They had never worked nor respected the rights of any one, they were almost wholly selfish. But when one of them entered school he became the "fag" of an upper-class man. He blacked his boots, swept his room, carried out his slops and ran errands for him. From the cuffs he received and the odd jobs he was compelled to do for others, he learned that there were others besides himself who had rights. Doubtless, Dr. Arnold was right in his

conclusion that the system was a good thing for the boys that entered Rugby; they learned to respect the rights of others and became useful citizens, when otherwise they might have become sordid bigots.

(4) *Study*. — The great business of the school, and especially of the rural school, is study, and, if the school is not studying, it is not sticking close to business. A visitor has but to cast his eyes around in order to determine whether the school is working, and, if it is not working, something is wrong. The teacher is not requiring thorough preparation for the recitation, the conditions in the schoolroom are not suitable for study, or there is a lack of interest. It is not a good school. It may be disorderly, not punctual, to some degree disrespectful, and yet be a fairly good school; but, if it is not a studious school, if it does not work, if it does not think, it misses the very thing for which it is being maintained. Lack of studiousness often comes from noise or confusion, from distractions from within or without, from the teacher doing the greater part of the reciting, from not having a properly arranged study program, from lack of enthusiasm on the part of the teacher or pupils.

(5) *Enthusiasm*. — The good school should be enthusiastic. Naturally enthusiasm must originate with the teacher; one can hardly conceive of a school being enthusiastic when the teacher is a "dead" teacher or more interested in other things than in the school. Interest begets interest and enthusiasm begets enthusiasm. The way to get an enthusiastic school is for the teacher to be enthusiastic himself. A live teacher will develop a live school. For, as is oft quoted, "As the teacher is, so is the school."

(6) *Growth*. — Finally, the good school will be a growing school. This may mean that additional pupils will

enroll; the older pupils, who thought that they would not go to school this winter, will change their minds and conclude that as the school is such a good one, they will go another term. It may mean that pupils will come from other districts when their school has closed. The fame of the school has extended beyond the borders of the district and strangers are knocking at the door for admission. But it surely does mean that it is growing from within; that it is getting better from week to week and from month to month; that new plans are being laid and new and better regulations are being introduced. It means that the school is not dying but is growing; there is no half way place, it is either improving or retrograding.

TO PUPILS

To Classify Aright. — One of the first duties of the teacher is to classify pupils aright. This is sometimes a difficult task, for the teacher may not have accurate information on which to base a judgment; and, second, the pupil and parents oftentimes desire that the pupil be put into a class too far advanced for him. In the first instance, the teacher will have to suspend judgment for the time being, until better information can be obtained. This suspension of judgment should be brief, for the pupil may be losing precious time. As to the second hindrance, the teacher will try in the most discreet way possible to convince pupil and parent of their mistake in the matter, but may in some instances have to go contrary to their wishes and put the pupil into the class where he belongs. It is for the best interests of the pupil that he be placed in his proper classification.

To See That Conditions are Favorable for Study. — It was said above that the school might not be a studious

school because conditions were not favorable for study. One of the reasons for keeping order in the schoolroom is to make conditions so that a pupil can study if he so desires. Whatever the teacher's ideal of order, discipline or quiet may be, this one thing must guide and govern it. The writer remembers the instruction of an institute teacher of a good many years ago. He said that in his room at home he had this motto, "Sacred To Study," and that the order of the room was such that at any time during school hours a pupil could come into this room and, undisturbed, sit down to study. This is a high ideal for the conditions of a schoolroom, but not too high for which to strive.

To Give Judicious Help. — In the process of his work a pupil usually comes to a place where he needs some help, and it is the mark of a good teacher to know how and when to give help. Too much help makes a weakling of a student, and not to help at the proper time is likely to discourage him. Too often the help is telling or doing the work for the pupil. This satisfies the average student, but is not judicious, for telling does not insure understanding, and doing the work for another does not indicate that he can do it afterwards. The judicious teacher does not tell, when by questions he can lead the pupil to see or work out his problem for himself. As a rule the student should be encouraged to go as far as he can with his problem or proposition so that the teacher can get his line of thought or reasoning; then the teacher can come in with a question or two and lead him to complete his thought and solve his problem or explain his proposition.

To Direct Intellectual Growth. — The teacher should be interested in the intellectual growth of his pupils. To watch the growth, to see that the thinking is logical and not biased by prejudice, to see that the will does not over-

step the bounds of reason, are parts of the delicate work of the teacher. It is especially in the study of civics, history, and literature that the teacher can get into the inner chambers of the pupil's thinking and learn his bent of mind. It is then through judicious direction that his mental growth can be cared for.

To Direct Moral Growth.—Closely connected with intellectual growth is moral growth. The pupil's ideas of right and wrong, the expression of his moral judgments, his attitude of mind toward moral issues of country, city, and school, should all receive the teacher's attention and direction. The playground is another field for the cultivation of moral ideas. The teacher should see that its code is a just one.

To Give Suggestions as to Physical Well-Being.—It is in youth that many bad habits of sitting, standing, walking, etc., are contracted. Directions about eating, sleeping, bathing, etc., should be a part of the program. The child with wet feet or clothing should be dried; the child with dirty hands or face should be washed; the child with "tousled" head should be combed, and his foul body bathed. To accomplish this will require much tact on the part of the teacher.

Then the teacher should have a good stock of games and plays so that the pupils will not lack for healthy school sports and exercises to build up a strong and robust physique. "A sound mind in a sound body" is as much to be desired to-day as when this statement was first uttered.

To Inspire with Higher Ideals.—The teacher that leaves a school and has not left in the minds of the pupils a desire for better and higher things has not fulfilled all of his mission. Life in a good many of their homes is sordid, and they need the touch of a loving hand and

the comfort of cheering words. This is not merely a duty but a privilege and a great opportunity that comes especially to the rural teacher. This topic will be found treated more at length in the chapter on the Opportunity of a Rural Teacher.

TO THE COUNTY SUPERINTENDENT

To Keep Accurate Records.—The superintendent, with officers of higher rank, is interested in compiling and reporting school statistics. The apportioning of the state school funds is based in various ways on the reports of the county superintendent. He depends upon the reports he receives from teachers and school officers for the data for his report. For this reason he is interested that the teacher keep and make out accurate reports.

To Make All Reports Promptly.—Not only should the reports be accurate, but they should be made out promptly. It takes no longer to make out the report the day it is due than two or three days after, and often it can be made out much more easily and more quickly while the facts are fresh in mind. For example, a truancy report can be made much more readily at the time that it is due than a week or ten days later, after the facts have been forgotten; then, too, a report made promptly is worth much more, for the pupil is losing time from school while the teacher is holding the report. It is a relief to the teacher to know that his work is done promptly, and it commends the teacher to the superintendent. He would like to have his schools filled with teachers who are in the habit of doing things on time, for it saves him time and labor. In any business transaction it pays to be prompt.

To Coöperate in His Plans.—The good superintendent always has some plans for his schools that he would

like to see put into effect. It is through the teachers and through them alone that he can put these plans into operation. The teacher may not see the need of them, for he has not studied the subject as the superintendent has, but loyalty to his superior requires him to follow the lead of his superintendent. If the superintendent wishes to interest the boys in agricultural contests or the girls in cooking or sewing contests, it is only when the teachers coöperate with him that he can make these a success. He looks from a higher elevation and has a broader view of the school interests of the county and should be accepted as the educational leader. The results can be left to his account to be answered for at the next election.

Following the course of study is important among the many things that the live superintendent wants done. In some states where this plan has been in operation for a number of years, it may be a matter of course; but in other states it still needs emphasis. The course of study simply outlines the work to be accomplished in a week or month, as the case may be, and this can be followed even though the school is not well graded. If the school is not graded, it is desirable that it should be, but this cannot be accomplished all in a day without great detriment to individual pupils. It should be a gradual pushing forward in the subjects in which the class is behind and a letting up in those studies in which the class is in advance of grade.

By this process, the school should be quite well graded in two or three years. Of course, the new pupils should never get out of grade. The teacher owes it, not only to the superintendent but also to the educational interests of the county, to follow the course of study and grade the school as it can be done without detriment to the pupils.

TO THE NEIGHBORHOOD

The teacher should consider that he is one of the neighborhood and should lend his assistance for the upbuilding of its every interest, social, intellectual, and moral. What he can do depends very much upon the conditions and needs of the neighborhood. It may be that the young people very much need a leader in their social affairs. Then the teacher who knows how to lead an evening gathering and entertain a house full of young people in unobjectionable amusements, has a rare opportunity of uplifting these young people and leading them into the enjoyment of a pleasant and helpful pastime. We are social beings and must mingle, one sex with the other, but a sharp line should be drawn between improper associations, and those which are innocent and healthful. Fortunate is the district that employs a teacher who can discern between the bad and the good, the better and the best, in social life.

Again, the neighborhood may be ready for advanced steps in agriculture, domestic science, or hygienic conditions of the home. The teacher who knows how and is willing to help bring about these conditions can be of great service to the neighborhood. This is the age for the improvement of country life, and the teacher should be in the advance guard of the procession. With discretion and tact, the teacher can give many valuable hints of how the homes may be beautified and made more sanitary; how some of the drudgery may be avoided and the health and happiness of the family be improved; how life may be stripped of its sordidness and be made useful and happy in serving others.

By placing himself on friendly terms with the people of the community, the teacher can often receive as well

as give information. The boy or girl who goes from town into the country to teach school has a good many things to learn and can well afford to listen to those who know more about country life and rural conditions than one who has been brought up in town can possibly know. Wrapped up in the rough exterior of many an old farmer is a generous supply of good common sense, and, if the young teacher can get the use of this free of cost, it will be courteous and wise to receive it and use it.

TO SELF

In all this multiplicity of duties the teacher must not forget his duty to himself. He has his health to preserve, for no one who has lost health can do the work of a successful teacher. He must have some time for himself to improve his mentality and to grow in vigor of mind as well as in vigor of body. But all of this attention to self must have in it an altruistic spirit. The thought uppermost should be, "I am here to serve this neighborhood and I must do nothing to impair me for that service."

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Chapter XVIII

THE OPPORTUNITY OF A RURAL TEACHER

THE LESSER OPPORTUNITIES

To Earn a Salary.—To the average person starting out to teach a rural school, it is an opportunity to make forty or fifty dollars a month, and to some this is really and truly an opportunity. This may be the first time in their lives that they have had the privilege of earning some money for themselves. Merely to be able to buy a good suit of clothes often gives a man new confidence in himself and higher ambitions in life.

A Stepping-Stone.—To others it is an opportunity for eking out an existence while they are preparing for some other occupation,—studying law or medicine. The teacher of a large country school has a rare opportunity to learn something and to learn it thoroughly. There is no better place to get an accurate knowledge of the common branches than in a district school. Many a young person has testified to the fact that he learned more the first year of teaching than in any previous year of his life. While teaching a country school and earning a comfortable living, many a young man has prepared himself for the study of medicine or law.

The making of the rural school a stepping-stone to some other profession has been to the great detriment of the schools. Teaching the school becomes a secondary matter and the school does not receive the best thought of

the teacher. Until the school shall receive the best the teacher has to give, both in thought and interest, the school will suffer and not reach a very high standard. The rural schools have been suffering from this practice more than the city schools, for teachers are "tried out" in the rural schools and, if they prove successful and want to continue the work, the chances are that they will find a position in some village or city school. This practice has resulted in the cities getting the experienced teachers and those who have fitted themselves for the work, while the rural schools have so far been compelled to take the remainder.

THE GREAT OPPORTUNITIES

To Teach a Good School. — The first great opportunity for the person who goes out into the country to teach, is to teach a *good school*. With so many young, inexperienced teachers, with so many teaching just for the money, and with those who are making school-teaching a stepping-stone to some other profession and giving only a part of their energies to the school work, the rural schools are sadly in need of good teachers, teachers who know how to teach and are willing to put their life and energy into it. One of these schools which has seldom or never had a really good teacher will appreciate intelligent and inspiring work in the schoolroom.

To Inspire to High Ideals. — A greater opportunity than has thus far been indicated lies in the finding of boys and girls and inspiring them to higher ideals and aspirations. A farmer may be found in the geography class, a physician in the physiology class, an artist in the drawing classes, etc. After all, the great work of the teacher is inspirational, and the teacher who can lay his hand on the shoulder of a boy and inspire him to a great future,

has done more than the one who has taught him how to solve every problem in the arithmetic.

He will not have failed, if he has found one boy and placed his feet on the solid rock of a nobler ambition. The story of how Miss —— asked John to stay after school one night illustrates the point at hand. John was asked to remain after school. He stayed and pondered what he would say when he was confronted with some of his misdemeanors, but judge his surprise when the teacher, after all were gone, stepped up to him and said, "John, I want you to go to college." That is the idea; inspiration pure and simple is what lasts and is still working when the knowledge of textbooks becomes "ancient and forgotten lore."

Then too, the boys and girls of the country are the ones who are ready and willing to receive this inspiration. The boys of town have so many opportunities, and at the same time so many temptations, that they are not so susceptible to good influences.

Extension of Teacher's Influence. — The teacher's sphere of work need not be limited to the school. The whole neighborhood may be in need of some one to lead them out of their sordid lives into higher and more complete living. This may be accomplished through a mother's club, a literary club, or social entertainments. Tact and good judgment are necessary to determine what is best to be done. It is quite plain that the teacher should become one of the neighborhood and take an interest in its welfare and enlightenment. Jean Mitchell (see "Jean Mitchell's School" by Wray) succeeded in making the school the social center of the neighborhood and interesting all in the work of the school.

Making the school the source of inspiration for civic and social uplift is not the dream of an enthusiast nor the

story of a fluent writer, but it has actually been worked out by rural teachers in various states.

WHAT HAS BEEN ACCOMPLISHED BY TEACHERS IN COUNTRY SCHOOLS

From the fact that the three R's have dominated the rural curriculum for so long a time, too many teachers have come to think that nothing out of the regular routine can be accomplished in a one-teacher school. But to all who think in this way, we commend a careful study of what has been done by these several teachers.

In Kansas. — Mrs. Emily K. Hoelcel has been able, through energy, enthusiasm, and hard work, to accomplish many things usually thought to be impossible in a one-teacher school. While the equipment with which she had to work was better than is often found in a country school, yet very much of it can be had, if the teacher has the will, and most of it Mrs. Hoelcel would have wherever she might teach. It was a large, clean, roomy schoolhouse, freshly painted on the exterior and in the interior, but not a modern building. At the entrance of the building was a hall. To the right in this hall the teacher had placed two benches and tools for manual training; to the left, a water stand with individual drinking cups numbered and hung above, a wash place, and a dinner pail stand.

There were seven fine pictures on the walls, a large case of maps, a globe, a dictionary, liquid and dry measures, a cupboard for seat-work material and tools, a bookcase with three hundred volumes, an organ, a teacher's table, two chairs, and a blackened stove. The teacher's table contained loan pencils (cleaned daily), ink, pen, a tray of pins, a magazine for the boys and one for

the girls, a clock, and always a vase of flowers, also the necessary books for recitations.

There were all grades, excepting the second grade. All classes recited daily with few exceptions. By a wise adjustment of her program the teacher was able to give twenty minutes to a number of her classes and fifteen to many others. During part of the opening exercises music was taught three times a week and rote song twice a week. After dinner a period of twenty minutes was devoted to reading by the teacher, the telling of stories, or the discussion of topics in agriculture. Drawing was done incidentally in all grades as seat work.

The mind of the good teacher is of the same type as that of the general. It marshals the troops and finds a place and work for each one. In this school no one was idle. The little people had seat work, in the direction of which the teacher was assisted by older pupils. They in their turn did some kind of handwork, basketry, sewing, domestic science, manual training, or helped with the care and management of the schoolhouse.

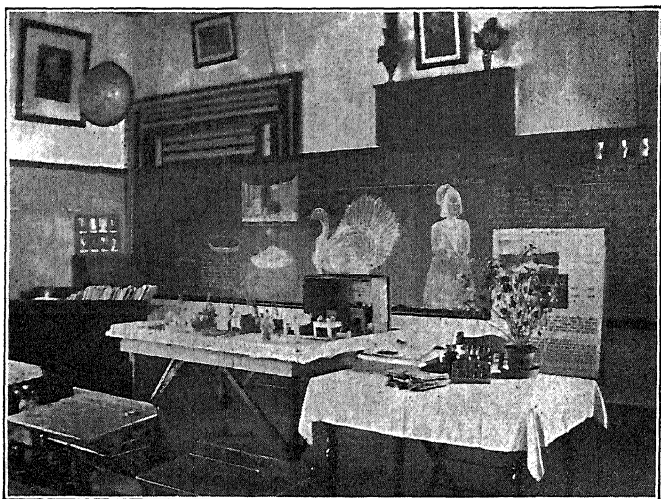
In the domestic science class an outline of recipes was followed which varied with the months. For instance, September and October lessons included the canning of fruits, making of relishes, preserves and fruit butters. For some of the work the girls furnished the material and each one supplied the necessary utensils. After a course of twenty lessons in domestic science was finished the girls took up a regular course in sewing, consisting of the different kinds of stitches, gathering, different kinds of seams and fancy stitches. The final test of this work was shown upon towels, aprons, handkerchiefs, and many other useful articles.

Lessons in manual training were given on Tuesday afternoons from three to four o'clock. During this hour

the boys were given instruction and advice upon all points that might have come up during the week in regard to their work. All errors in handling tools were corrected. Difficulties anticipated were clearly explained so that the class could continue work during their spare moments in the afternoons without the teacher's attention. The drawing of their pieces was done during spare moments. During the eight-month term each pupil of the ninth grade, besides completing his school work, made ten pieces: a bread board, a coat hanger, a footstool, etc. On rainy days the spare time at noon was devoted to this work. The fourth and fifth grades completed five small pieces in wood whittling.

The board paid the school for doing the janitor work, and this money went into the "pupils' fund." With this money and that obtained from entertainments, pictures and other adornments for the schoolhouse were purchased, as well as the oil stove, oil and some of the utensils for the domestic science classes. Sweeping, dusting, building of fires, fetching of water, etc., were closely linked with the domestic economy program. Each one did his share and took his turn. When playtime came, there were games and plays, in which both teacher and pupils took a lively interest. Nor was ethics neglected, for each day brought its lessons of politeness, truthfulness, kindness, etc. Twice a month the mothers met, and together with the teacher, studied some good book on Child Study, etc. A "Children's Hour," a "Mothers' Day," a "Fathers' Day" and a "Parents' Day" linked the school with the home and made every patron feel an added interest in the school and a new courage for life's duties.

Decorating the Schoolroom for Festivals. — Incidental ways in which the schoolhouse can be made a community

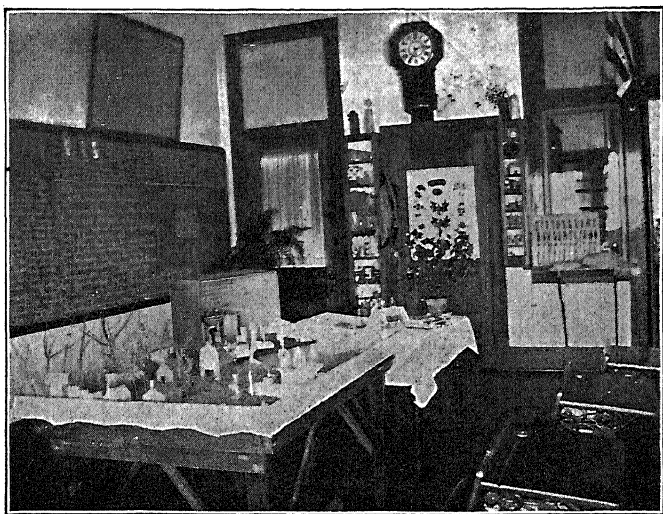


A SCHOOLROOM DECORATED FOR THANKSGIVING

center have often been demonstrated. Especial opportunities for identifying the school with the social life of the community are afforded on the occasion of some festival. The following is a description of the way in which Mrs. Hoelcel's pupils decorated their schoolroom for Hallowe'en. This plan of decoration would be suitable for any festival of the autumn.

A window was assigned to each class. The smaller classes aided by making chains, baskets, lanterns, etc. The teacher gave the pupils an idea of what was desired. Pupils discussed their suggestions and ideas with the teacher before putting them into effect.

The windows had dark olive green shades and pretty white curtains. Window number one was decorated in evergreen sprays intertwined into the edges of curtains to their full length. A triangular effect of evergreen



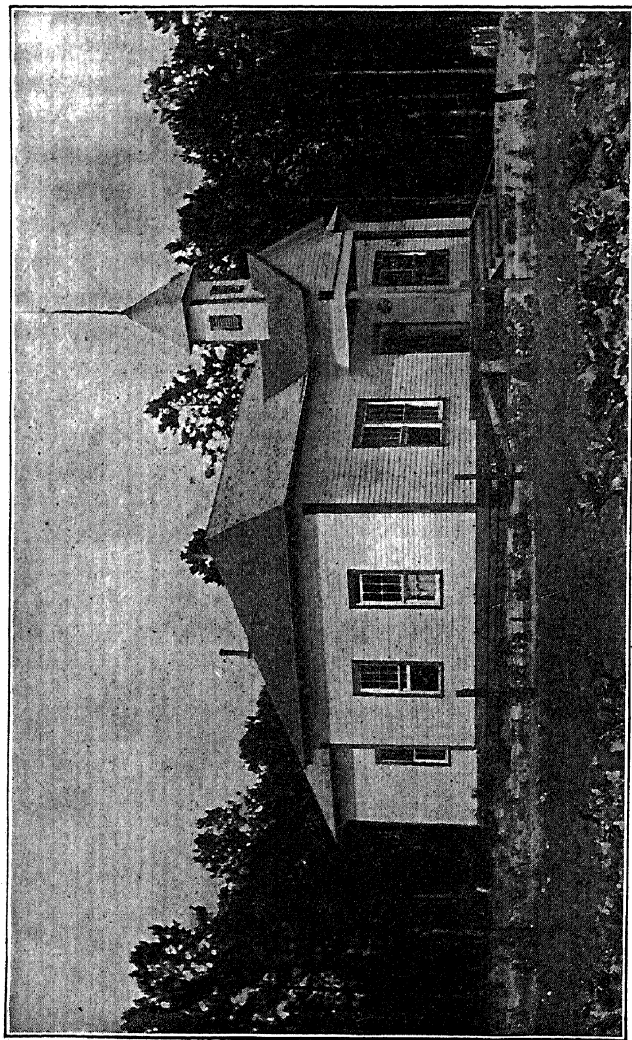
ANOTHER VIEW OF THE SAME SCHOOLROOM

was carried out over the lower sash. Upon the window sill was a bed of sand filled with shells, and amid the shells stood a small globe of goldfish.

Window number two contained kaffir corn stalks of different lengths filled in on both sides. Where the stalks met a jack-o'-lantern was placed. Upon this window sill different kinds of ears of corn were placed, also a few squashes.

Window number three contained stalks of corn with ears arranged like the kaffir corn. This was somewhat softened by bunches of asparagus tops. Upon the sill were placed different kinds of apples.

Window number four was decorated much as number one only in buck-brush and asparagus green. Upon the window sill were vases containing flowers, with autumn leaves bunched prettily about them.



CEDRON CONSOLIDATED SCHOOL

The Opportunity of a Rural Teacher 209

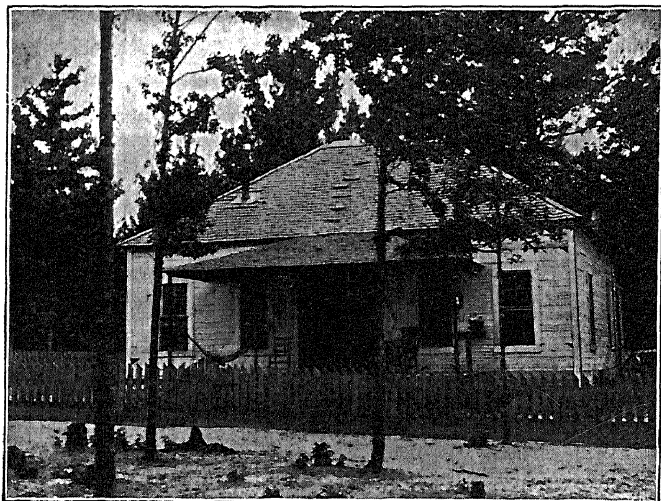
Window number five belonged entirely to the two primary grades. The chains and baskets were hung in festoons across the window underneath the curtains. Upon the curtains all kinds of paper jack-o'-lanterns were pinned. The window sill was filled with evergreen, among which gourds with carved faces peeped at the audience.

The lamp brackets were twined with evergreen and bittersweet vines. The pictures were decorated with flags and bunting. Pictures may be borrowed temporarily to carry out the idea of the day.

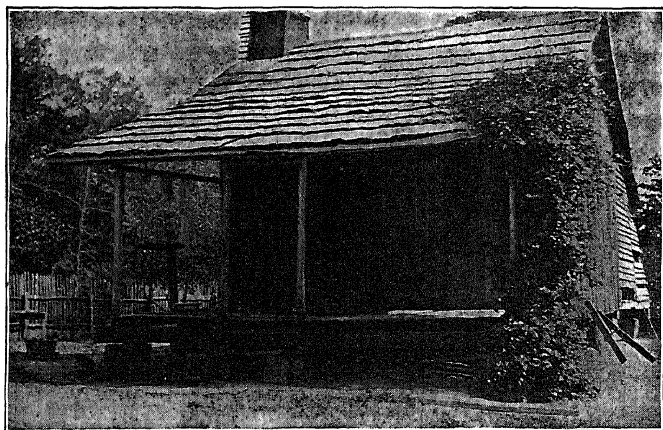
In Louisiana. — Mr. E. C. Bott of Natchitoches parish was sent by the Parish Board to take charge of Cedron Consolidated School. When he came into the district in the early summer of 1911 he found no dwelling in which to house his family. However, the board gave him permission to move his family into the new school-house while he and his two sons made over into a dwelling for the teacher the two old schoolhouses which had been moved to the new school site. When the school opened in September twenty pupils came in the district's wagonette, others on horseback, and on foot, until, before the year closed, all but three of school age in the district had presented themselves for enrollment.

The houses having been erected in the midst of a forest of young pines, there was no playground, so teacher and pupils with axes and spades cut down the trees and dug up the roots, thus clearing about three acres, enough for playground, school garden and dooryard for the dwelling.

Not the least interesting feature of this remarkable school was the school garden. The pupils cleared the ground, built the fence and planted the seeds. In one corner of this garden a hotbed was made in which tomato and cabbage plants were started for the school garden



THE TEACHER'S DWELLING



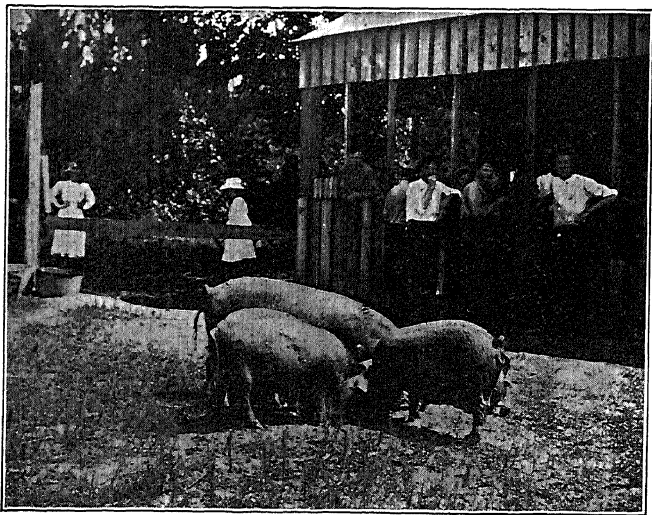
A NEIGHBOR'S DWELLING



THE CEDRON SCHOOL GARDEN

and for the tomato clubs of the neighborhood. The beans and peas raised here were the earliest and best of any in that vicinity, as were the tomatoes and cabbages. In every respect this garden was the best in all that neighborhood and was an "object lesson for the community. By means of this garden, not only were the pupils instructed in gardening, nature study and elementary agriculture, but also fifteen or twenty dollars were made for the school, to be expended for books or other school supplies.

Among the girls of the school, sixteen were organized into a tomato club to raise tomatoes at home. They were instructed in school how to prepare the soil, how to fertilize and set out the plants. As soon as the season had opened, the plants in the school hotbed were large enough to set out. From this bed, plants were furnished not only to pupils of the school but to all persons in the neighborhood who desired them.

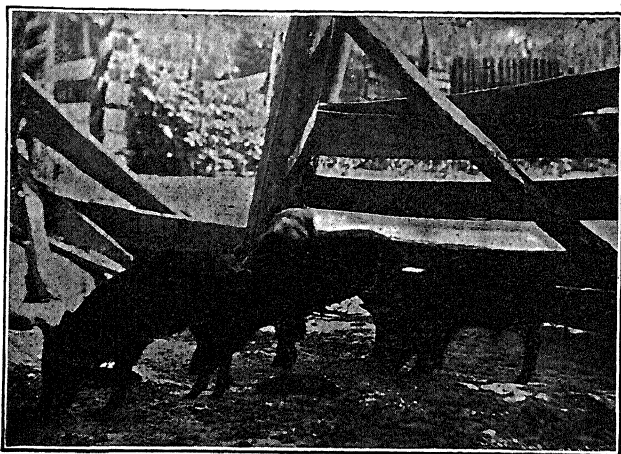


TEACHER'S HOGS

The teacher brought with him two pure bred O. I. C. hogs. From this start some eight or ten pure bred hogs have been distributed throughout the vicinity. A "Pig Club" of three pupils was organized. The original "Razor Back" is doomed in that vicinity.

Four boys decided to put their energy into raising corn. As a result of this club work, an intense interest in agriculture, gardening and general community improvement was aroused. This interest culminated in many competitions at the parish fair.

Mr. Bott organized a literary society which was well attended, and he aroused much interest in civic affairs. He organized a Sunday school, a mutual telephone company and a canning company, which canned the tomatoes, corn, etc., raised in the school garden and by club members and others of the community.



THE ORIGINAL "RAZOR BACK" IS DOOMED

It is hard to estimate the worth and influence of this school and its teacher upon the neighborhood; for every one in the whole vicinity has been awakened, been aroused to new effort. They are seeing visions, dreaming dreams. Before the coming of the teacher and the consolidated school there was no life, no ambition to do more than they had been doing for years. They were making a bare living and did not expect to do more. Now they believe they can raise anything that grows out of doors. The prospects are that there will be forty acres of tomatoes planted next year, and that the capacity of the canning plant will have to be more than doubled.

The idea that they can raise better hogs is spreading and the young men for miles around are seeking for a start of pure bred pigs. The teacher brought with him a pure bred Jersey cow. There is grass and pasture going to waste and the introduction of this cow may

serve as an object lesson which will lead to the establishment of a creamery.

The people of this community know now that they can raise other products besides cotton. They will be the first to eradicate the benumbing influence of the hookworm and will come to the front educationally, socially and economically.

All this Mr. Bott accomplished because of his energy and spirit, and because he knew what was needed to be done in that vicinity. When he entered the community there were dissensions and factions among neighbors, but he succeeded in interesting all for the common good of the neighborhood and for the upbuilding of a common interest. There are many other neighborhoods ready to be led to better things economically, socially and morally, when the teacher can be found who can lead them.

Very little of what has been accomplished in the Cedron Consolidated School could have been done had not the teacher lived on the school grounds. To make the school a community center and inspiration for better country life, the teacher must not be a transient, he must be not merely a nominal resident, but an actual member of the community.

In Iowa. — That a teacher can create an interest in remodeling and decorating the school grounds even where no interest has been manifested before, is forcibly shown by what was accomplished by Mrs. Huftalen, now county superintendent of Page County, Iowa. She says: "In 1903 I began in a nearly new schoolhouse at Oneida in the northeastern part of Iowa. The school ground was literally covered with debris of various kinds, including heaps of earth and ashes, sticks and stones galore, weeds, some grass and a hub-deep mud hole in front of the porch. On the inside there was a spirit of grumbling, misde-

meanor, and rebellion. For ornament there were three meaningless newspaper prints posted on the walls. Otherwise the room was light and cheery and well heated with a furnace, which gave us warm floors.

"Although the pupils were loud, restless and rude, in a short time they were led to turn this worse than wasted energy of youth to industrious pursuits and intelligent coöperation. During the five years of my stay in this school, the ash heaps were removed to the hillside gutter, the dirt mounds were carted to fill hollows and to make a raised flower bed which was bordered by the waste stones, eighty-four trees were planted, an octagonal arbor twelve feet in diameter was constructed of discarded telephone poles and chicken wire and an arch bearing the name of the school, "Arbor Vitae Summit," was erected in front. The grass was kept mowed during the summer. No mark or scratches of any kind were to be found in either of the outhouses, which were scrubbed often.

"With money raised by school socials a large bell was purchased and placed in a belfry. Besides this, we bought a flag, bat and ball, books, pictures, etc."

Mrs. Huftalen believes in play as well as work for children, for while teaching in another school at Norwich she speaks of securing for this place, a sandpile, swings, seesaws, volley ball, tennis net, croquet, and an iron Maypole.

Besides these, there were placed on this school ground a walled terrace 48 by 97 feet for a playground, flower beds bordered with cement, an arch with seats, trees and two outbuildings, the best in the county.

All this was accomplished through efforts of a teacher, whose capital was energy, enthusiasm, and an intense devotion to the cause of education.

In Washington; The Noon Lunch. — Professor Virgil E. Dickson of the State Normal School at Cheney has started

a movement which is worthy of consideration and imitation. Its application is possible in almost any school where children bring a cold lunch. The plan is something as follows. Some provision is made for a stove and a few dishes and cooking utensils. The stove may be an oil burner, rented or borrowed, and the dishes may be loaned by the patrons whose children bring their dinners.

The noon lunch may be managed in some such manner as Professor Dickson described to the author. He said:

“Sometime before noon, two girls went into a little room and started the noon dish, which for this day was vegetable soup. Just before close of school for noon, these same two girls, without any directions from the teacher, again went and finished preparing this hot dish for the noon meal. When school was dismissed, each child got his lunch basket, found his place to eat, took from his basket a paper napkin and spread it upon his desk. On this he placed his lunch, using his napkin as a tablecloth. He also provided himself with a small doily on which to set a dish of hot soup. He now set aside his basket. The two girls served each one with a dish of the hot soup, and all sat and ate like a large family.

This gave an opportunity for social conversation, some lessons in table manners and suggestions as to what were good things for a cold dinner. No one was expected to leave until all had finished; so there was none of the usual unseemly haste of a school lunch. When the meal was finished, the girls removed the dishes, washed them and put them away.

Do pupils like this way? So much that they would not go back to the old plan after it has been tried. Do they not get tired of soup every day? They doubtless would but for the fact that soup is not served every day. One day it will be a cup of hot cocoa, a dish of rice or hominy

or a dish of hot bean soup. How about the cost? It is very little, about one cent a dish. Each teacher will have to meet the expense in his own way. Sometimes the board will furnish the money needed, other times each pupil will contribute five cents a week, and again, the teacher will give an entertainment and raise the amount of money needed."

The social and refining influence of a noon lunch conducted properly, to say nothing of its hygienic value, commends it to the attention of every thoughtful teacher. Through it the teacher may reach every home in the district with a refining and uplifting influence.

In Oregon; A Way to Unite School and Home. — There has been much admonition on the part of educators urging the union of the interests of school and home; but no one has succeeded so well in solving this problem as L. R. Alderman, formerly State Superintendent of Oregon. In his little pamphlet, "School Industrial Credit for Home Industrial Work," he says: "The idea of giving school credit for home work first occurred to me nine years ago, when I was a school principal. I had noticed that one of my rosiest-cheeked, most vigorous appearing girls spent much time on the streets after school. One day Mary's mother was pointed out to me. She was a pale, nervous little woman with several children. Knowing that the family was not well-to-do I felt myself burning with indignation at the circumstances that were drawing Mary away from interest in her home. I thought, 'What is the use of my teaching that girl algebra and general history, when what she most needs to be taught is that her mother is her best friend and needs her help?'

"At the algebra recitation the next day I announced that the lesson for the following day would consist of ten

problems as usual, but that five would be in the book, and five out of the book. The five out of the book would consist for the girls in helping cook supper, helping to do up the kitchen work after supper, preparing breakfast, helping with the dishes and kitchen work after breakfast and putting a bedroom in order. When I asked for 'hands up' on all the problems the following day, I noticed that Mary kept her hand raised after the others were down. 'What is it?' I asked. 'I worked five in advance,' she replied with sparkling eyes. 'I worked five ahead in the book, besides the ten that you gave us.' From that time Mary's interest in all school work was doubled. She was right up in the first rank."

Ex-Superintendent Alderman's account of what is being done by an Oregon teacher in a rural school reads as follows: "A. I. O'Reilly, a young man who is just completing his third year at the Spring Valley school, a country district in Polk County, determined last September (1911) to test the plan of giving credit to his pupils for the work they did at home. He went to his directors, and secured their promise to give money from the general school fund to be awarded to the pupils earning the most credit in a home-work contest. He then proceeded to work out his plans, the contest idea being original with him."

The duties for which home credit is offered and the amount of credit for each are as follows:

"Building fire in the morning, 5 minutes; milking a cow, 5 minutes; cleaning out the barn, 10 minutes; splitting and carrying in wood (12 hours' supply), 10 minutes; turning cream separator, 10 minutes; cleaning horse, each horse, 10 minutes; gathering eggs, 10 minutes; feeding chickens, 5 minutes; feeding pigs, 5 minutes; feeding horse, 5 minutes; feeding cows, 5 minutes; churning, 10 minutes; making butter, 10 minutes; blacking stove, 5

minutes; making and baking bread, 1 hour; making biscuits, 10 minutes; preparing the breakfast for family, 30 minutes; preparing supper for family, 30 minutes; washing and wiping dishes, one meal, 15 minutes; sweeping floor, 5 minutes; dusting furniture, cleaning rugs, etc., one room, 5 minutes; scrubbing floor, 20 minutes; making beds, each bed, 5 minutes; washing, ironing and starching own clothes that are worn at school, each week, 2 hours; bathing, each bath, 30 minutes; arriving at school with clean hands, face, teeth and nails, and with hair combed, 10 minutes; practicing music lesson (for thirty minutes), 10 minutes; retiring on or before 9 o'clock, 5 minutes; bathing and dressing baby, 10 minutes; sleeping with window boards in bedroom, each night, 5 minutes; other work not listed, reasonable credit."

The conditions and rules of the home credit contest are given here:

1. No pupil is obliged to enter the contest.
2. Any pupil entering is free to retire from contest at any time, but if any one does so without good cause all credits he or she may have earned will be forfeited.
3. Parent or guardian must send an itemized list (with signature affixed) to the teacher each morning. This list must contain record of work each child has done daily.
4. Each day teacher will issue a credit voucher to the pupil. This voucher will state the total number of minutes due the pupil each day for home work.
5. At the close of the contest pupils will return vouchers to teacher, the six pupils who have earned the greatest amount of time, per the vouchers, receiving awards.
6. Contest closes when term of school closes.
7. Once each month the names of the six pupils who are in the lead will be published in the county papers.
8. Ten per cent credit will be added to final examina-

tion results of all pupils (except pupils of the eighth grade) who enter and continue in the contest.

9. When pupil has credits to the amount of one day earned, by surrender of the credits and proper application to teacher he may be granted a holiday, provided not more than one holiday be granted to a pupil each month.

10. Forfeitures: dropping out of contest without cause, all credits due; unexcused absence, all credits due; unexcused tardiness, 25 per cent off all credits due; less than 90 per cent in deportment, 10 per cent off all credits.

11. Awards: three having highest credits, \$3 each; three having second highest credits, \$2 each. Awards to be placed in a savings bank to the credit of the pupil winning them. Funds for awards furnished by the school district board out of general fund.

All of Mr. O'Reilly's pupils, thirty-one in number, entered the contest with the vim and eagerness for which children are noted, and have faithfully kept up their home work throughout the year. The parents have coöperated by sending in the lists of work done by the children at home. Every morning Mr. O'Reilly receives these notes, which are usually written by the children and signed by the parents. Here are a few samples of parents' reports:

| FLORA MORTENSEN, | |
|--------------------------|------|
| April 17, 1912. | |
| | MIN. |
| Fed the chickens..... | 5 |
| Gathered the eggs..... | 15 |
| Set the table..... | 5 |
| Wiped the dishes..... | 5 |
| Tended flowers..... | 20 |
| Swept one floor..... | 5 |
| Was in bed before 9..... | 5 |
| Washed teeth..... | 10 |
| Prepared one lunch..... | 5 |
| Total..... | 75 |

The Opportunity of a Rural Teacher 221

| | |
|------------------------------------|------|
| HENRY DAVIDSON, April 17, 1912. | MIN. |
| Milked cows..... | 20 |
| Curried horses..... | 10 |
| Hunted eggs..... | 10 |
| Fed chickens..... | 10 |
| Fed horses..... | 10 |
| Fed pigs..... | 10 |
| Fed cows..... | 10 |
| Cut wood..... | 10 |
| To bed before 9..... | 5 |
| | — |
| Total... .. | 95 |

So far as is known to the author, no better plan has been devised for connecting the school and home than that set forth by Superintendent Alderman. It commends itself in that pupils will be given an interest in home duties and be brought to realize that an education is not for the purpose of freeing oneself from work. It will give the parents a more vital interest in the school, as they see it aiding with the every-day duties of the home. This plan is worthy the thoughtful consideration and a careful judicious trial on the part of every experienced teacher.

But some one says, for much of this I am not paid, nor is it in my contract. While this is true, yet, if the teacher is not working just for the money and wants to know how best he can invest his life while teaching a district school, here is his *opportunity*.

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Chapter XIX

CONSOLIDATION

CHANGED CONDITIONS

DOUBTLESS many a thinking teacher has asked himself, if no one else, "Why this need of consolidation? Why were not the districts made large in the first place and left so?" In reply to these questions it may be said that conditions have changed. In the early days the cities had not improved their schools to the present state of efficiency, and the one-room school in the country was more nearly on a par with the village school near by. But the concentration of people and wealth into the cities and towns and the successful operation of the graded school system has left the one-room rural school of our forefathers far behind. The contrast between the two is great, and it is greatly to the humiliation of the rural school.

Not that a one-room school is necessarily a poor school, nor that a country school is by reason of that one fact a poor school; but a *small* school is, and always has been a poor school. In early days families were large and proportionately more people lived in the country than now. Consequently the schools were larger. In almost any county may be found a schoolhouse that was built to accommodate fifty children which now has an attendance of less than ten. Some one may ask where the children are? The only answer is that they are gone. To be sure,

occasionally there is a schoolhouse that is full, but the crowded schoolrooms are in the cities and villages. The children are not in the country as they used to be.

ORIGIN OF THE DISTRICT UNIT

Although the above is true, it is possible that the independent district was a mistake in the first place. Originally, in New England, the township was the school and governmental unit. By an ordinance in 1647, Massachusetts decreed that "Every township after the Lord has increased them to fifty housekeepers, shall then forthwith appoint one within their own town to teach all such children as shall resort to him to write and read." At that time the church parish and the governmental unit were one and their interests were the same. Of course, education was largely under the control of the church, and so long as the church unit and the governmental unit were the same and harmonious, it was all right; but when other denominations began to come into a town and to hold independent church services, they wanted to control the schooling of their children. This gradually led to giving the control of schools into the hands of committeemen for independent districts.

In 1789 Massachusetts incorporated the district system into its revised code. Horace Mann said regarding "school districts" that it was the most disastrous feature in the whole history of educational legislation in Massachusetts. From this it seems that this great educator was never pleased with the independent district unit. It must be understood that at times and places these districts have been entirely independent, having power to hold school or not as they pleased and to hire such teachers as suited their caprice. In some cases they

would have one term of school in three or four years. But now, in Kansas, for example, if the school district neglect or refuse to have a term of school or to provide schooling for the children of the district, it becomes the duty of the county superintendent to step in and provide a school for these children and charge the expense to the district. In these old-time districts, the school committee would examine the teacher, and make suggestions as to methods of conducting the school and governing the pupils; in fact, they were school board and county superintendent combined.

EVILS OF THE DISTRICT SYSTEM

The above is the independent district carried to its fullest extent; and this idea of local self-government has so captivated the American people that the district system of school control has engrafted itself upon a large number of the states of the Union, and school people have been fighting its evils ever since the days of Horace Mann.

Taxation. — These evil results are various. First, the small unit is not equitable when it comes to raising money by taxation. It is a principle of our free school system that the property shall pay the expenses of running the schools; but it is said that one third of the property of Massachusetts is within a radius of ten miles around Boston. It is hardly possible that one third of the schools of Massachusetts are within this radius. In many ways it can be shown that the large unit is more just when it comes to raising money for schools by taxation.

Need of Supervision. — Then again, it has been impossible for all the schools to get teachers who were proficient in school management and methods in teaching; in other words, teachers who do not need supervision.

In other ways also it has been found that an expert in education can be of great service to the individual school, and this has led to school supervision. Supervision in turn calls for a larger unit, the city, the county, and the state; it is too expensive for the small unit. While neither taxation nor supervision has been settled satisfactorily to the school interests of the country, yet the tendency is all toward the larger unit, toward consolidation.

Lack of Social Contact. — The social element is such a factor in all school life that segregation becomes withering in its influence, while aggregation and consolidation are stimulating and helpful. In many ways it can be shown that the small school is a poor school, but especially in its lack of social opportunities. Persons learn from each other. The contact of mind with mind is one of the best ways of learning. Travel, coming into contact with many people in a social or business way, gives a breadth of character, culture and understanding that is not obtained from books or study. The society events and social intercourse of a large school are in themselves a great educational factor and a source of much profit to the young man or woman that comes in from a rural community.

THE LARGER UNIT

Progress of Movement. — Although consolidation of school districts has been advocated for a good many years and Horace Mann succeeded in consolidating the districts of a number of townships in Massachusetts, yet it was not until the Committee of Twelve made its report to the National Educational Association (1896) that it was brought prominently before the people of the country. Since then many states have authorized consolidation by law, and quite a little has been accomplished in this time.

The consolidation of school districts is but another form of "centralizing tendencies," as Mr. Boone calls them in his "History of Education" which we have mentioned elsewhere. It is getting back to a larger unit for the school proper. It is not claimed that this should be the unit for supervision and taxation; perhaps the state and county for supervision, and the township, county and state for taxation, are about the ideals of educators of the present time.

Social Value. — As has been said before, the small school is, as a rule, a poor school. The social element is lacking, and the larger boys and girls will not attend. There is a lack of emulation, and the pupils and classes do not do their best work. In a small school there is no class spirit, there is no school spirit. Consolidation brings a larger number of pupils together and makes a good school possible.

Economy. — Often it is a matter of economy to consolidate a number of districts. It frequently happens that a number of schools in a locality are all small, eight to twelve pupils each. Sometimes four or five of these schools may be combined and taught by half the former number of teachers. Much, also, can be saved in the expense of fuel, apparatus, etc.

The matter of economy would commend consolidation to the rural communities, and especially to those that are sparsely settled, were it not for the difficulty of getting pupils to and from the schoolhouse, which, from the nature of things, must be located at some distance from many of the homes. The solution proposed for this problem is what is known as Transportation. A number of routes are laid out covering the district, wagons are bought by the district, and drivers are hired to gather up the children in the morning and bring them to the schoolhouse.

At night these same routes are retraced and each child is left at his own home.

Objections and Answers. — There seem to be serious objections offered by those who should be most directly interested and who would be most benefited if the plan of consolidation should prove a success. We quote the following among the prominent objections offered:

1. "Depreciation of property; decreased valuation of farms in districts where schools have been closed."

This seems to be imaginary, as experience has proved the contrary to be true. Land values have increased more in the consolidated district than in a neighboring district of the old type.

2. "Dislike to send children to school far from home, away from the oversight of parents."

This also is a myth, for under consolidation children are better cared for than under the old system, and now that there are the telephones, in cases of sickness the child can be more readily relieved and the parent can be more quickly notified than if they were under the conditions of the old-fashioned district school. (See reports of Superintendent H. S. Gilhams, page 229, and of Dean of Department of Agriculture of the University of Illinois, page 230.)

3. "Danger to health and morals: children obliged to travel too far in cold stormy weather; obliged to walk a portion of the way to meet the team, and then to ride to school in damp clothing and with wet feet."

As to health and morals, the consolidated school has every advantage over the old custom. In bad weather it is certainly better to ride than to trudge through mud or cold a mile and a half or more. The moral conditions under a poor driver will never be worse, and under a good driver will be infinitely better, than where a mixed group

of children loiter along the public road or roam unprotected through the open fields. No man who would be trusted with the driving of one of these wagons would permit the abuse and vile language before little girls that now takes place on the road to and from school. If a child *had* to walk a short distance to meet the wagon, this would be no worse than to walk all the way; and the instances where this would occur would be rare, for the wagon will generally come to the door. (See report of Superintendent Gilhams, page 229.)

4. "Difficulty of securing proper conveyances on reasonable terms, or if the parent is allowed compensation, of agreeing on terms satisfactory to both parties, parents and officials."

While in some localities it may be difficult to secure suitable drivers and make satisfactory terms for transportation of pupils, yet where districts have consolidated they have been able to adjust this matter and convey the children to school just as the Government has been able to find men and teams to deliver the mail daily at the farmer's door, and just as creamery companies have found persons willing to make a daily route to gather cream. (See report of Dean of the Department of Agriculture of the University of Illinois, page 230.)

5. "Natural proneness of some people to object to any innovation, whatever the measure or however well it is received elsewhere."

To us this seems to be the greatest hindrance to the consolidation of many districts. We "rather bear ills we have than fly to those that we know not of." Where consolidation has been tried, it has been almost universally satisfactory, but people are slow to take up new ideas and make radical changes. If it is judiciously advocated, the coming generation will accept it.

REPORTS IN REGARD TO CONSOLIDATION IN SEVERAL STATES

Hon. E. T. Fairchild, State Superintendent of Kansas, has set forth the advantages of consolidation so well that by permission we are quoting from his Bulletin on Consolidation as follows:

In Indiana and Ohio. — The report of Superintendent H. S. Gilhams for 1903-04 gives the following statement of facts as to consolidation in La Grange County, Indiana:

“ 1. The drivers carry watches and consult them while on the route.

“ 2. Each driver keeps the time of the consolidated school, generally standard.

“ 3. The rate of speed while on the route averages five miles per hour for the year.

“ 4. The time of arrival varies from ten to fifteen minutes prior to the opening of the schools.

“ 5. The more remote pupils ride about five miles, and sixty per cent ride three miles or less.

“ 6. Children are kept comfortable by stoves, patent heaters, blankets and soapstones.

“ 7. The greatest advantage to the service is township ownership of hacks and the improvement of roads.

“ 8. The drivers exercise due responsibility in promptly and safely conveying the children to school and returning them to their homes; they also, by contract, prohibit questionable language, undue familiarity and boisterous conduct in or about the hacks.

“ 9. Eighty-five per cent of the patrons have reported the consolidated school as their preference in comparison with the ‘old way.’ ”

The Dean of the Department of Agriculture of the

University of Illinois caused a special investigation to be made of the consolidated schools in Indiana and Ohio, and below are some extracts from the report:

"Over sixty per cent of the districts report the cost as less and the results as better after consolidation. About fifteen per cent report the cost as being the same, and ten per cent that the system costs more, but the results are better. . . ."

"There are four things that are going to benefit this country: These are the telegraph, the daily mail, the electric car and the centralized schools in the country, and when you have gotten these you have many of the advantages of the city in the country, and all the advantages of the country besides. I do not think I can advocate too strongly the centralized schools. . . ."

"The advantages of centralization are many. It has been found that the attendance has been more regular; very seldom are the scholars absent. Much more interest is being taken and greater progress made. They have larger libraries, better teachers, more competition in their work, and, in the end, are far more accomplished than would have been possible had they attended the district school. I might add further that it has been proven that the children have been warmer and more comfortable."

" . . . If a child is taken sick at the school, he is sent home at public expense. This has occurred, I was told, four times in the past three years. As one of the parents said, 'It is a great comfort to know that if occasion demands it my child will be brought home.' "

"As to the character of the work done in this well-graded six-room high school as compared with that of the scattering schools, there is no room for argument, there is absolutely no comparison possible."

"Of the fifty-six persons interviewed in Gustava and

Green townships, forty-five were in favor of the system, four were indifferent, and seven opposed, and of the seven who were against the system, six were without children in attendance at school. The advantages of an up-to-date and thoroughly conducted high school were in this rural school shared alike by all the children of the township. Six months under the central system is as good as nine months under the old district plan. . . ."

"The poor man who has heretofore been able to send his children only to the district school now has the pleasure of seeing them securing the best education that could be provided by the country."

"The plan of centralization offers equal advantages to all the children of the township. It permits a better grading of schools and classification of pupils. It affords an opportunity for thorough work by adding more weeks of schooling and by the addition of higher grades of study. Fewer but better and more capable teachers will be employed and retained; and, besides, it brings the stimulating influence of larger classes, with the spirit of emulation incident thereto. Small schools cannot have the vitalizing force that comes from larger numbers. Children who are transported in comfortable wagons are not exposed to the rigors of inclement weather. Tardiness and absence are almost unknown. The parents become more deeply interested in the schools. The result is better school buildings, better sanitary conditions, better equipment, and all of this at a less aggregate expense than under the small district plan."

A. B. Graham sent inquiries to parents in townships in Ohio having consolidated schools, and secured the information below:

"How does the driver announce his coming?" The answers were: "By blowing a horn;" "Blows a whistle;"

"Halloos;" "Doesn't announce his coming; children learn about his regular times of coming."

"Does your child stand and wait for the wagon?" Every reply so far is "No."

"Is it necessary to clothe your child as heavily for the winter trips as under the old plan?" Seventy-five per cent answer "No"; fifteen per cent "No difference"; ten per cent "Yes."

"Does your child attend school more regularly than under the old plan?" Eighty per cent answer "Yes," twenty per cent "See no difference."

"Does your child show an increase in its interest above what it was under the old plan?" Ninety per cent answer "Yes," ten per cent "No."

"Do your teachers show an increase in interest above what was shown under the old plan?" Ninety per cent answer "Yes," five per cent answer "No," and five per cent "Notice no difference."

"What effect have centralized or consolidated schools on the social and educational interests of the township?" Most who answered said that there had been great improvement.

"In the main, do you feel favorable toward centralized or consolidated schools to-day?" Seventy-five per cent of those who at first had objected, answered this question by saying "Yes." Some on the end of the longest route answered "No."

In Ohio the State Commissioner of Education is loud in his commendation of the plan.

In Eastern States.—The president of the State Board of Education of Massachusetts reports that "in Massachusetts, at least, the plan of consolidation of rural schools is no longer an experiment, but is recognized in most of the towns of the Common-

wealth as a means of raising the standard of education in rural communities.

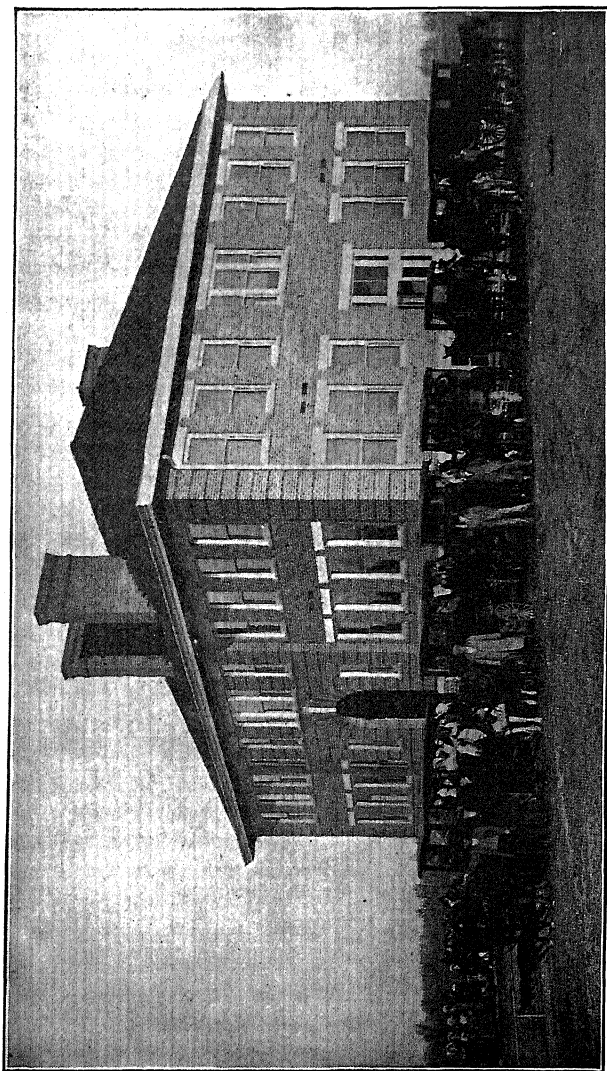
In Connecticut, consolidation, as reported by the state superintendent, has been most advantageous to the state.

In New Jersey the advantages enumerated in favor of consolidation are: (1) economy; (2) better teachers and equipment; (3) better supervision; (4) regularity of attendance of pupils; (5) better educational spirit.

Report of United States Commissioner. — Wm. T. Harris, formerly United States Commissioner of Education, in his report on the subject of consolidation, says:

“Upon the success of this movement rests the chief hope for the improvement of the rural school. It is fortunate that a device which changes the ungraded school into a graded school involves a saving of expense. The improvement is well worth the trial, even were it to double the cost of the rural school; but, as will be seen by statistics, it is secured with an actual saving of expenditure. Better teachers, more sanitary buildings, less personal expenses on the part of the pupils, better classification, and many lesser advantages are commending this reform to the entire country.”

Modified Forms of Consolidation — Superintendent I. J. Scott of Story County, Iowa, has inaugurated a plan of gradation in the schools of Grant township, which is, to say the least, unique, yet simple in its organization. The pupils of each of three adjacent school districts are divided into three groups. In the first group are grades one to three, in the second group, grades four to six and in the third group, grades seven to nine. Pupils of the first group are assigned to the central building, those of the second, to another, and those of the last group to a third. Each child is supposed to walk to his own schoolhouse; then, if his group belongs in one of the other buildings,



A CONSOLIDATED SCHOOL AT MAYS LICK, KY.

he rides there in a conveyance furnished by the combined districts. By arranging the programs of each school to suit the convenience of the driver, one school beginning at nine-thirty and another closing at three-thirty, one wagon conveys all pupils to and from their respective schools. Two wagons, one starting at one extremity of the combined districts and the second at the other, and meeting at the central house, exchanging pupils and then returning, would do the work more satisfactorily. At night they could be returned in a similar manner.

By this plan schools in the country can have many of the advantages of graded schools.

The legislature of Minnesota of 1911 provided that certain "high schools, graded schools or consolidated rural schools, having satisfactory rooms and equipment" etc., might be designated by the state high school board as schools in which "an agricultural and industrial department . . . might be maintained." This department consists of courses in agriculture, manual training and home economics. With these designated schools "one or more rural districts" may be associated. These rural districts are not to be disorganized, but unite in the support of these special courses. A common tax of not less than two mills is levied. The "Central School" receives state aid to the amount of \$2500, and \$150 for each associated rural district. The rural districts receive \$50 each.

STANDARDIZATION OF THE SCHOOLS

In Louisiana. — A commendable movement on foot in Louisiana, advocated by C. J. Brown, State Rural School Supervisor, is worthy of consideration and imitation in other parts of the country. It is known there by the term "Standardization of Schools." By this plan it is aimed

to reduce the number of grades in the one-room school to possibly five; and to centralize the upper two or three grades in a consolidated school.

This plan has a number of commendable features: (1) It furnishes a school near home for the younger children and makes it possible to employ a teacher suited to lower-grade work. (2) Since, as a rule, there are fewer pupils in the upper grades by this plan it will cost less for transportation to the consolidated school. (3) In many cases these older pupils can furnish their own conveyance and thus obviate altogether the expense of transportation to the district. (4) It will bring older pupils together into a school where a man teacher may be employed and athletics fostered. (5) In some states the primary school will want two sessions, a fall and a spring session, with the vacation in the winter, while the consolidated school would have but one, beginning in the fall and closing in the early spring. (6) Little or no expense to the district is involved. Where conditions lend themselves to this plan, it would seem an admirable method of consolidation.

In Minnesota. — To improve the schools of this state, aid is offered to certain high schools, graded schools and common schools which fulfill specified requirements. "For the purpose of fixing state aid for common schools" they are classified as Class A, Class B, Class C. The table shows the requirements and the aid given each class:

| Class | Teacher | Term | Building and Equipment | State Aid |
|---------|-----------|----------|---------------------------------------|-----------|
| Class A | 1st Grade | 8 months | Suitable Building and other apparatus | \$150 |
| Class B | 2dd " | 8 " | " | 100 |
| Class C | " " | 7 " | " | 75 |

In Wisconsin. — For the purpose of bringing about better conditions in the country schools of the state, Wisconsin is offering state aid to several classes of her schools which meet certain requirements. While the state offers this aid to other schools, we are interested in the "state graded schools" and the "rural" schools.

Of the former there are two classes. The first class consists of schools of three or more departments, which maintain a nine months' school taught by competent teachers, a principal holding a state certificate, with assistants holding high-grade certificates or teachers of successful experience.

Schools of two departments may be state graded schools of the second class, providing they have a principal who holds a first-grade county certificate. If he holds a certificate of lower grade, he must be a teacher of successful teaching experience certified to by the county superintendent. The assistant must be a well qualified teacher.

In both classes the buildings, furniture and grounds must be "maintained in good condition and free from any unsanitary feature." "Sufficient equipment, including globes, maps, blackboards, library and other essentials for the proper work of the school shall be provided by the school district."

If, when inspected by the state rural school inspector, a school meets the requirements of a state graded school of the first class, the state aids in the maintenance of the school to the extent of \$300; if of the second class, \$200.

A law passed by the recent session of the legislature gives an additional \$100 to either class of state graded schools that do strong work in agriculture and one other industrial subject. Special state aid may be withheld from any school not doing high grade work in every department.

Of the rural schools there are two classes, first and second. "Every school district . . . which shall have maintained a school or schools for eight months the previous year; provided a suitable school building, needful apparatus, supplementary readers; installed an adequate system of ventilation; and done efficient work, shall . . . be deemed to have maintained a rural school or schools of the first class." A school of this class is entitled to state aid to the amount of fifty dollars for three years. Schools of the second class do not receive any special state aid.

In Missouri. — It does not seem necessary to offer special state aid in order to bring about standard schools; indeed, it seems questionable in the mind of the author whether this is the better method. What is needed is an awakened public sentiment for better schools in the country; and probably, a better and purer public opinion can be aroused without state aid than with it.

Without prize money but with the aid of county superintendents and a rural school inspector, Wm. P. Evans, State Superintendent of Missouri, has undertaken to raise the standard of the schools of his state. He says: "The first plan for approval of rural schools was promulgated in 1909. It led at once to increased interest, on the part of many communities, in the grading of the school, in attendance and in better buildings and grounds. Nearly three hundred schools have been placed on the approved list, and many others are taking such steps as will lead to their approval in the near future." The county superintendent and inspector "approve" a school when it reaches the required standard.

In order to determine whether a school is up to standard or not, eighty out of a possible one hundred points must be earned. Twenty of these hundred points

are based on the Condition of the School Building; seventeen, on Apparatus and Equipment of Building; thirteen, on Grounds and Outbuildings; twenty-five, on the Course of Study and Organization; twenty-five, on the Teacher.

“Before a school will be approved it must comply with the following requirements: (1) The term must be at least eight months in length. (2) The teacher must hold a certificate higher than a third-grade county. (3) The salary paid the teacher must be at least forty dollars per month. (4) The board must have complied with the library law, section 8186, R. S. 1909. (5) The state course of study must be followed. (6) The organization and classification of the school must be definite and systematic. (7) The instruction and discipline must be satisfactory. (8) The school buildings, grounds and outbuildings must be adequate, clean and sanitary. (9) The room must be heated by other means than radiation. (10) The teacher must be a regular attendant at county and township meetings. (11) A satisfactory program of recitation and study must be posted conspicuously.” The legislature in the 1913 session has provided for state aid to weak districts under certain conditions.

In Illinois. — In the arousing of sentiment for better conditions in country schools, a rural school inspector is of inestimable value. Illinois now has two supervisors under the direction of the state superintendent. With the aid of these supervisors, Francis G. Blair, State Superintendent of Illinois, has been able to take advanced ground in the movement of standardization of rural schools. From his bulletin, “The One-Room and Village Schools of Illinois,” for 1912, the following is quoted: “The supervisors of country and village schools upon invitation of the county superintendent, will visit a

county spending two or three days inspecting schools in all parts of the county. The directors will be invited to be present. The grounds, house, furnishings, heating, ventilation, library, water supply, outhouses, qualifications of the teacher, teaching and conduct of the school will be inspected, and when the essentials of a good school are found present, a diploma will be granted it as a standard school. A plate bearing the words 'Standard School' or 'Superior School' will be placed on the door. The diploma and plate will be subject to recall if the school fails to keep up to the standard. It will be the policy, not simply to find fault, but to assist in finding out what the schools really need and to encourage improvement."

"... Seven hundred schools have been standardized. Not more than one fifth of these were up to standard when inspected. Four fifths of them were brought up after inspection by the state supervisor and the county superintendent."

"On the whole the work is very encouraging. County superintendents, school officers, teachers and parents have responded as soon as the matter was clearly before them. Some counties have already half their schools on the standard list. We have every reason to expect that in a few years ninety per cent of the schools of some counties will take rank as standard schools."

REQUIREMENTS FOR A STANDARD SCHOOL

Following are the requirements for a standard school as outlined by Superintendent Blair:

Yard and Outbuildings: 1. Ample playground. 2. Good approaches to the house. 3. Two well-kept, widely separated outhouses. 4. Convenient fuel house. *The School-*

house: 1. House well built, in good repair and painted. 2. Good foundation. 3. Well lighted. 4. Attractive interior decorations. 5. Good blackboards, some suitable for small children. 6. Heated with jacketed stove in the corner, or a room heater and ventilator in the corner, or basement furnace which brings clean air in through the furnace and removes foul air from the room. 7. Floor clean and tidy.

Furnishings and Supplies: 1. Desks suitable for children of all ages, properly placed. 2. Good teacher's desk. 3. Good bookcase. 4. A good collection of juvenile books suitable as aids to school work as well as general reading. Pupils' Reading Circle organized. 5. Set of good maps, a globe, dictionaries, sanitary water supply.

The Organization: 1. School well organized. 2. Classification and daily register well kept. 3. Definite program of study.

4. Program of recitation. 5. Attendance regular. 6. At least seven months of school. 7. Discipline good.

The Teacher: 1. The equivalent of a high school education.

2. Must receive at least \$360 per annum. 3. Ranked by the county superintendent as a good or superior teacher.

4. Must read Teachers' Reading Circle books and attend institutes and meetings.

Superintendent Blair says, "Many school officers have not only expressed themselves in favor of having the essentials of a good school, but they want their school to be as nearly right as it can be made. To encourage this laudable desire a diploma will be offered to a Superior One-room School." The requirements for a superior school are along the same lines as for a standard school, except they are more complete and rigid. Along similar lines the schools of villages and small towns will be standardized. Read these requirements for a standard graded school: 1. The discipline must make good work possible and tend to establish sound character. 2. If the

school does only eight years of work, pupils must be well prepared for first year of high school. 3. If the school does ten years of work, the 9th and 10th years must be equal to the first two years of the course of a good four-year high school.

When rural schools can be brought up to the above standards, good work will be possible in the one-room country school.

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PART II
RURAL SCHOOL METHODS

Chapter I

PRIMARY READING

IMPORTANCE OF READING

THE importance of reading is hard to overestimate. It is the foundation stone upon which all education is based. It is the door which admits one to the storehouse which contains the products of the master minds in all fields and of all periods. Literature, natural sciences and mathematics must be approached largely through this avenue. It is the first and most important means at man's command of coming into contact not only with the rudiments of learning but with the best and latest word on any and all subjects of past or present interest. By this means we are kept in close touch with the doings of the world, — the current events which make future history, — with the latest finding in the fields of science and art and mechanics. To but few are given the time, the opportunity, the means, to do original research work, to travel, to study at the best schools or to investigate sociological and kindred conditions at first hand, but by means of books the results of such work are brought directly to us at little cost or trouble. He who enables one to take advantage of these efforts of others by teaching him to read understandingly and to like reading for its own sake has performed a great service. He has placed at one's command the means by which he may obtain

instruction, entertainment and pleasure independent of season, friends or financial conditions.

In spite of the importance of this subject and the fact that it is the first and almost the last subject taught in the rural schools, it continues to be one of the most poorly taught subjects of the common school course. It is taught as a duty, as a matter of course, but with little thought about it except that it is a means of learning to pronounce words. In this respect the spelling book might just as well be used as a textbook with but little difference in results. In fact, much of the so-called reading is little else than a naming of words.

KINDS OF READING

Silent Reading and Oral Reading. — Reading is of two kinds, silent, or mental, and oral, or vocal. Silent reading is of first importance because the greater part of what one reads is read thus for his own pleasure and profit, and because his oral expression of thought is entirely dependent upon his mental grasp of the thought to be expressed, plus the mechanics of effective speech. Although the chief end and aim of teaching reading is to render one a good silent reader, it is through the agency of oral reading that the teacher is enabled to do this. By oral reading, mainly, is he able to judge of the pupil's ability to understand and translate the thought of the printed page, and it is only by this means that he can correct errors, direct the mind into right channels and assist the mental concept by insuring for it the proper physical expression. Although the oral expression of a thought cannot excel the reader's concept of the same, yet the knowledge of the pupil's idea, gained through his oral expression of it, enables the teacher to approve or to

improve the pupil's grasp of the thought. Hence, we must concern ourselves chiefly with obtaining correct oral expression as an indication that the mind is getting the desired idea. Silent reading is a *thought-getting* process, oral reading is a *thought-giving* process. Thought-getting must precede thought-giving. As the child must generally get the thought which he gives from the printed expression of it, the chief work of the teacher of primary reading is the development of the ability to interpret the printed page. As this power increases, more emphasis is given to control of voice and body and the various physical attributes concerned in the oral expression of the thought, but in no stage of the work can the two lines be entirely separated, nor can any sharp line be drawn to indicate where one ends and another begins. As the pupil advances there should be less difficulty in thought-getting and greater ease in thought-giving.

What Constitutes Good Oral Reading.—Good oral reading consists mainly in reading as one would wish others to tell it to him in those words. Judged by this simple standard, there is much poor reading, for it is remarkable how seldom one hears the natural speaking tone used by the average reader in school. Instead, there is heard the high pitch, the halting or the drawling manner, a too loud, a too low, or a muffled, indistinct tone. There is little or no attempt either to understand or to express the author's thought and the reader rushes or drags through the selection as his familiarity with the words or his lack of it will permit. This is all the more deplorable because the teaching of reading may easily be made one of the most interesting and satisfying of all the common school subjects, and a subject in which one may quickly see the results of earnest effort and the use of proper methods.

METHODS OF TEACHING READING

As has been said before, the province of teaching primary reading is chiefly to put a child into possession of the means of thought-getting. To do this it is necessary ineffaceably to impress certain forms upon the child's mind so that he shall not only know these forms but shall be able to use them in the recognition or determination of other forms to be met in the future. The mastery of these symbols will be discussed under the different methods which have been or are used in teaching primary reading.

Aim of All Methods.—Of these methods there are many, but when used alone, no method is without its defects. In all methods the final end is the same, regardless of the means employed to secure it. This end is the ready recognition and easy use of the written symbols of ideas and thoughts as expressed by words and sentences. By whatever means this is secured, certain things must be accomplished before the child is fully equipped for efficient, independent work, before he is in possession of all the instruments which he needs for the mastery of the art of reading. He must recognize words and groups of words, he must know letter forms, sounds and names and how to combine sounds and forms. He must acquire the habit, unconsciously perhaps, of looking upon the words not as an end in themselves, but as a means to an end, and that end, the thought bound up in the words. The words are only the shell of the nut which must be cracked before he can obtain the meat. For this reason too, the sentences presented to the child before he begins the study of reading in a book should not be merely a string of words. The first book of a series of readers especially should have real literary value in order that a taste for good reading may be acquired.

The best method, then, is the one that enables the child to become an independent reader with the least expense of time, and with the greatest degree of interest and pleasure. He should early acquire some way of determining new words, and this should proceed gradually from the known to the unknown.

Various Methods.—The principal methods of teaching reading are: The Alphabetic, the Word, the Phonetic, the Phonic, the Sentence and the *Rational* method. Each method chooses a different basis for the point of attack in learning to recognize sight symbols and in connecting the symbols with the corresponding sounds. Each of these methods has had its advocates who proclaimed it the sole and only good system; but the test of use has shown the strength and the weakness of each in turn. By each, many thousands have learned to read, though often in spite of the method. No one of them is without some weakness, but long experience and careful observation has shown that a judicious use of the best features of several different methods produces a method which gives a proficiency and a broadness which is not otherwise possible.

The Alphabetic Method.—The alphabetic method, which fortunately has fallen into quite general disrepute and disuse in recent years, has few claims to merit except that of teaching the names of the letters—which is in no sense learning to read—and that, perhaps, it helps to make good spellers, which also has nothing to do with good reading. Its advocates proceed on the theory that naming the letters will assist in pronouncing the word. That nothing is farther from the truth must be evident when one studies a few words and attempts to pronounce them by combining the *names* of the letters that compose them. *Cow* becomes sē-ō-double ū. Instead of pronounc-

ing cow, he really says four other words, *see, o, double, you*. *Man* becomes em-a-en and *hand*, aitch-a-en-d. Also, *kt* spells *Katie* and *nme* spells *enemy*. From these examples it is seen that, instead of being a help, the names of the letters are an actual hindrance to correct pronunciation. That which really happens in the use of the alphabetic method is one or the other of two things. The letters are named and then the teacher pronounces the word. After countless repetitions of this sort the mind becomes indistinctly conscious that a certain character represents a certain sound — not the name — though the sound, in all probability, could not be given apart from the word. Were the attention directed at once to the sounds represented by the letters, how much time and useless effort would be saved. The other process is that which occurs in the use of the word method. That is, by constant repetition the child associates the name with the form of the word as a whole. Thus we again find that the names of the letters are simply useless material that cumber the mind and distract attention from the real matter and might much better be left to be learned incidentally as the need for them arises later.

The Word Method. — The word method places the emphasis upon the word instead of upon the letter as the unit in learning to read. The words are simply taken as wholes without any consideration of the letters or sounds which compose them. The word to be learned is given, preceded by object or picture, when possible, and the pupil or teacher gives its name. The natural order of presentation should be, object or picture, spoken word, written word, and later, elementary sounds and letters.

After words are given they must be reviewed again and again until their recognition becomes instantaneous and accurate. The chief objection to this method is the fact

that the pupil remains too dependent upon the teacher for each new word. Each word stands out alone and no means of correlation and comparison gives ability to pronounce new words. Sooner or later many pupils do this but it is not an integral part of the word method. One advantage of this method is that it is logical. It begins with the single word, which is the unit of child language. His first speech consists not of letters, elementary sounds or sentences, but of single words or at the most of phrases. These words are names, "mamma," "dog," "drink," etc. Then come words of action, "see," "go," "run," "take," or "mamma take," etc., and these are soon followed by adjectives, as qualifying words, "pretty," "little," "good," etc. The personal element appears early also, and "my," "I," "me," etc., are heard. Soon these are joined into simple sentences. In about this order, words may be presented to the child who is learning to read, but words alone should be presented for a few lessons only. As soon as the stock of sight words will permit it, these should be combined into sentences, or stories, as the children like to call them.

The Sentence Method. — The sentence method is advocated by those who claim that the sentence, rather than the word, should be considered as the basis, or unit of speech. Complete sentences are given from the beginning, on the theory that the sentence is the only unit that expresses a complete thought and, since reading is a process of thought-getting and thought-giving, it is illogical to begin with an incomplete thought. The advocates of the word method and of the sentence method, however, do agree in insisting that the unit with which they begin shall have meaning and be capable of analysis rather than that meaningless fragments must be pieced together like a puzzle before they have any value. The

sentence method demands conversation, the development of the sentence orally and then its presentation in written form. This is then given back by the pupils. In the beginning no attention is given to the division of the sentence into words. The whole sentence is given by the teacher, and the pupils are expected to recognize it as a whole. Sentences containing the same words combined in various ways should be given. One can readily see that the same combination of words cannot be used frequently enough to give ready recognition of more than fragments of sentences. As the pupils note these similar groups and, finally, the individual words, the sentence method lapses into the word method just as, when the child begins to combine the words into sentences, the word method merges into the sentence method. For, if the teacher insists, as he should, that the whole thought be grasped mentally before any oral expression be given, he has crossed completely over from the one method to the other. The skillful teacher will secure excellent results by the use of the sentence method, but, when time is limited and the teacher is not an expert, usually much better results will be secured by means of the word method.

The Phonetic Method. — The phonetic method employs all the elementary sounds with their diacritical markings. The silent characters are usually omitted.

A specially prepared book must be used in taking up this method. After the child learns to read, this system is abandoned and another taught him. It is therefore very impractical, disconnected, uninteresting, and wholly a matter of memory.

The Phonic Method. — The phonic method has all the advantages of the phonetic method and more, without some of its disadvantages. It also makes early and constant use of the elementary sounds, making them, as

does the phonetic method, the basis of teaching. It employs all the letters of the alphabet to indicate particular sounds and then uses diacritical markings to indicate the additional sounds of the language. All this must be taught just as the a, b, c's are taught and is open to the same objections, but, unlike the phonetic method, it does not require specially printed books for its use, nor the learning of two forms of the same word. All new words are learned by the combination of these elementary sounds.

The Rational Method. — A modified phonic method originated by the late Edward G. Ward, superintendent of the Brooklyn schools, makes use of all these simple forms and also recognizes and employs numerous combinations of sounds, which appear frequently as an aid to ready recognition of new words. Some of these combinations are, "ing," "old," "ight," "ite," "ness," "ish," etc. Their use lightens the work materially, for this grouping requires but one mental effort where, otherwise, several would be necessary. It also compels recognition of the common element in a great many words and makes their mastery easy. These phonic symbols are called phonograms and are divided into simple and compound. The simple ones are the regular elementary sounds, and the compound ones are, "ing," "old," etc., such as have been mentioned as occurring frequently enough to be of advantage in learning many other words. Others of these are, "an," "at," "all," "ail," etc., which give rise to such lists of words as, *can, ban, Dan; bat, cat, fat; call, ball, fall; bail, fail, hail;* etc. In using them, the compound phonogram is recognized and then the pupil has only to sound the simple phonogram and combine it with the compound one in order to pronounce the word. It does not require great effort, if one knows that c-at is *cat*, to infer that r-at is *rat*.

Chapter II

PRIMARY READING (Continued)

HAVING set forth in the previous chapter the chief attributes of the various methods, it may not now be hard to concede that the ideal method of teaching primary reading is not by any particular one of these, but by a combination of the word and the modified phonic methods with the early use of words in sentences. Experience proves that pupils learn, thus, to read quickly and skillfully, because the phonic feature gives independence, the word feature gives them a large initial stock of material for reading matter, and the sentence feature requires thought and brings about smoothness and naturalness of expression.

In the next several paragraphs, for the sake of connection and further emphasis, several things already mentioned will be repeated.

THE COMBINED METHOD

A Bad Habit. — One of the worst habits, and one of the most distressing to hear, which children are often allowed to contract, is that of droning over and drawling out the words of the reading without expressing any meaning or obtaining any for himself. No child should be allowed to express a sentence without first having gotten the full idea to be expressed. This makes a perfect knowledge

of the words most essential, hence much and careful word drill must precede the reading.

Learning Words. — The more words one knows perfectly, the more readily and fluently he will read. The first few weeks of school life may be termed the word-getting period. The time will vary from five to ten weeks according to the age and ability of the pupils. The words should be given as fast as the child can master them, but care should be taken to see that he does master them and that, by constant reviews, the old words are not crowded out by the new. Time spent in insuring this in the beginning will be time saved for the future. That the child may not tire of these constant reviews, it is necessary that they be presented in as many ways as possible. Go daisy picking or rabbit hunting, gather autumn leaves, throw snowballs, make a tree of words and call them apples or Christmas presents, then see who can pick the most apples or name the most presents without missing. Find a certain number or all the words of one kind, see who can find certain words first, etc., etc.

The First Words. — A few of the first lessons must consist, necessarily, of detached words. Naturally, these should be names of common objects and action words, because the noun and the verb are the foundation of the sentence. They should be words, too, which are found in the child's own vocabulary. If possible, he should be led to use the words himself before they are presented to him in written form. At first, he must simply be told the word and made to understand that this written form is just another way of saying the same thing which he has said.

It is well to choose the names of objects that can be represented easily by the objects themselves and by pictures and drawings, e. g., *boy, dog, flower, box, baby,*

bird, nest, apple, etc. This gives them a reality and they easily become the subject of conversation. From this one can approach the word form without abruptness. The verb forms may be those which the child frequently uses, or those which he can illustrate by the action itself, as, *see, run, sing*, etc. The personal element is soon added by the use of *I* and *my*. The little words, *a, an, and the* must be given early. After their first introduction, the close combination of these words with their accompanying nouns, almost as though they were one word, will avoid the bad habit, so common, of emphasizing the "a" and the "the" and saying *a man, the boy*, etc. From the first these words should be slurred into the next word, thŭ man, a (ŭ) little boy. For a time it is helpful to illustrate this close connection graphically by drawing a line below the group, thus: a bird, the baby. This same plan is convenient and helpful to illustrate the natural word grouping found in speech and to assist in securing proper expression: I see the dog. I can see the little dog. My baby can see the bird in the big green tree. Run, my little dog, run to me.

A child's initial stock of words does not, necessarily, consist of the shortest words alone, for he is using sight and form as means of recognition, and the words, *baby, apple, flower, mamma*, etc., are as characteristic in form and as much a part of his vocabulary as, *cat, dog, and boy*. The sight words, however, should be mainly those the child will meet when he takes up his first book, with such others as the teacher may need to carry out her scheme of lessons.

A Knowledge of Phonics.—During the period when the pupil is mainly occupied in word-getting he should be laying the foundation for future independence in this respect by building up a knowledge of phonics. The

child is gradually introduced to his new words by a blending of the elementary sounds, or a process of slow pronouncing of words whose sounds blend easily, and continues the work in increasing amount, the teacher giving the sound until the pupil's ear becomes accurate and he can pronounce readily by this means. The pupils may then be encouraged to sound some new words with the teacher to see if they can tell what the sounds say. By choosing words that possess no difficulty, they will be pleased to find that they can both sound and pronounce the words.

They are ready then to begin the analysis of some written words which they already know by sight. The teacher may point out and sound the parts of the word *h-at*, *m-at*, *m-ā-dē*, *m-ā-kē*, *h-an-d*, *t-r-eē*. By using a number of words having one or more common elements the child will soon recognize them and associate form and sound, e. g., *māy*, *māke*, *māde* ; *mē*, *sēf*, *trēf*; *ball*, *fall*, *call*, etc. The characters may then be separated, using, at first, those whose sounds are easily made and which have but one sound, as, l, f, m, t, h. Drill on these sounds similarly to the way in which the sight words were drilled upon until sound and form are associated. Ask pupils to name *l* words (use names of sounds, not letters, in asking for these words), *m* words, *t* words, etc. Gradually include long and short vowels and other consonants.

When the list is sufficiently large and well known, the child should be encouraged to work out new words for himself. Many new words will fall wholly within his field of knowledge; others he can pronounce by hearing the teacher sound them, and some, whose peculiar formation might be misleading, had better be given as sight words until some future time, when an explanation will be understood. When we take up the sounding of the written forms, it is necessary to call attention to the fact that

some words have letters that say nothing, that is, are silent and, hence, are sometimes marked out. Special attention should now be called to the compound phonograms that they may be made daily use of in self-help to proper pronunciation. Children may be asked to give *ight* words, *ail* words, *old* words, etc., just as they were required to give words containing the single phonograms. In case of occasional confusion of similar words, such, for instance, as *lack*, *back*, and *black*, only the dissimilar part need receive special attention to secure its correct pronunciation. Drill cards, similar to the word cards mentioned elsewhere, may be used for frequent and rapid drill in any and all the ways suggested for the use of the word cards. Above all, from this time forth, the teacher should help the child to help himself but should pronounce, outright, no word which the child can determine for himself. After sounds and forms are closely associated in thought, it does no harm to mention, incidentally, the names of the letters, though this is not necessary until pupils begin to spell.

Spelling. — It may be well to mention here that spelling by letter is not a part of the general plan until about the time the pupils take up the use of the book. One must not imagine, however, that pupils are not learning anything of the subject of spelling. They are getting word forms and letter sounds which will make the spelling of their stock of sight words and of the new words, as they come, so easy that the average pupil will very soon master all the old words as well as the new ones. In giving the names of the letters, it is well to keep before the pupil's mind that while the *name* of the letter is *aitch* or *el* or *ef*, it says, not this name but its elementary sound.

Sounding Words and Expressing Thought. — When sentence reading has begun, should there be some word which

the child does not recognize, he must be made to feel free to make this fact known. He should be helped to pronounce it for himself, by sounding it or by comparing it with some known word. The teacher should avoid mere telling whenever possible, and it is nearly always possible if the child is thus taught from the beginning. When he has made sure that he knows all the words and has the thought in his own mind he will have little or no difficulty in expressing it orally, just as he has no difficulty in expressing a thought of his own because he knows what he *wants* to say and he *says* it. Herein lies the secret of good reading, which is simply saying things just as one would talk under exactly similar conditions. But, if the expression should be faulty, a little skillful or suggestive questioning will usually bring the desired result. If this fails, however, as may occasionally happen, some other child can almost surely give the sentence with the expression wished, and this is preferable to the teacher's giving it. Sometimes a child's interpretation may be different from the teacher's and yet be allowable. In such cases, the final rendition must depend upon what seems the most reasonable meaning and the child should be led to see this by his judgment and reason rather than by mere imitation. But that expressive reading is desirable from the first and that it cannot be secured until the child has some thought which he wishes to express, are facts which should not be forgotten by the teacher of beginners.

At first, this may seem to be a slow method, because the teacher must wait until the class has taken in a whole sentence, mentally, before a word is spoken. A reasonable time must be allowed for doing this, time enough, at least, for the large majority of the class to get it. The pupils should not be made to feel hurried, though they

should be encouraged to see who can get it ready first. Concentration of attention and interest are both secured in this way, for every child is intent upon his own work, which is one and the same for all. In the beginning the sentences must be quite short so that these may not be too much for the mind to grasp and hold at once. Gradually, these may be lengthened and made more difficult.

Interest. — From the first there should be some relation of thought between the various sentences of a lesson. The idea that they form a story always adds interest and makes one eager to know what is coming next. Interest is the keynote in all teaching. If one has gained that, success, in some measure at least, is certain, while, without it, learning is forced and slow. In this connection it is not amiss to say, that there will be no class interest if the teacher is not interested. The new matter must then be made alive and of seeming importance if it is to make a lasting impression. Introductory talks help to create this importance. That the sentences may be as interesting as possible, they should be of various forms, — statements, questions, exclamations and commands. This will make them more conversational and give opportunity for variety of expression. It is helpful, at all times, to make use of the period, the question mark and the exclamation point as keys to the meaning and proper expression of the thought.

PRACTICAL SUGGESTIONS

Use of Cards. — One quick means of reviewing all old words is to have them written on large cards, of a size, say, 3" x 5" or 3½" x 6". These are held before the class and run over rapidly, either in concert or individually, as desired. All words may be named by one pupil,

or they may be named in turn, or promiscuously, as the children's names are called. Sometimes the pupil may be allowed to hold all the cards he names, to see who can get the most. This gives much drill in a short time with little labor. It is also a means of keeping a complete list of all words where blackboard space is small. The inventive teacher will find many ways of giving the drills necessary for advancement and confidence in one's own ability while, at the same time, avoiding weariness.

The Transition from Script to Print. — The beginning work in reading should be blackboard work, largely, *using script only*. If one has a script chart, that may be used; but no chart gives the amount of drill work that is necessary. This can be obtained only by the use of the board. The printed chart should not be used in the first stages because the form of the printed words is sufficiently different to cause more or less confusion. The chart is good for review and drill when the transition is made from script to print. Do *not* use print on the board until ready to make this transition. Its use then is principally for the sake of comparison and is of short duration. When ready to make the change from script to print, which is preparatory to taking up the first book, choose words that are similar in the print and the script, as: *cap, man, little, dog, hop*, etc. Introduce the subject by some such explanation as the following: Miss S. does not wear the same waist every day, but she is still Miss S. Susie sometimes wears a red dress, but we still call her Susie. Fred had on a white blouse yesterday, but to-day he has on a blue blouse. So, children, the words you have learned are going to change their dresses in your nice new books. Then begin with some such words as those given above. At first, write both forms, and later, only the printed one.

The ease with which the pupil will be able to name the first words will cause him to lose any fear of difficulty. Whenever he cannot pronounce the printed form show him the written word for comparison. To do this and to teach many printed words quickly, it is an excellent plan to have the written form on one card and the printed form on another of the drill cards mentioned above, thus: man, *man*. First, show the written form, then the printed form, explaining that the words are the same. Have pupils name both forms. After considerable drill of this sort, the printed form should be shown first. If the child does not recognize it, he should be shown the written form and then the printed form again, which he now names. Resemblances and differences should be noted.

Danger of Using the Book too Soon. — A very common and serious error made by teachers is that of giving a book too soon. This is generally due, no doubt, to a lack of appropriate seat or busy work, with which to keep the child employed when he is not actually reciting. The teacher feels, and rightly, that the child must be occupied. Generally, more harm than good is done by such procedure, for the child has not sufficient knowledge really to study a book for several weeks — the number varying from six to twelve, according to the age of pupils and the time the teacher has to devote to this work. No primer or first reader can give the required amount of drill on all the words used to make the child proficient in this recognition and use, and, if he is held to the book, without a great deal of supplemental work, very soon he has gotten beyond the boundary of his knowledge into a region whose objects and paths are all unknown to him. Sometimes he will learn the stories by rote but cannot begin to pronounce the words when they are taken promiscuously, or, perhaps, he cannot even read the stories

without the aid of the pictures. Since a child who has been given his book too soon reads it but poorly, he is of necessity obliged to "go through it" — he does not really read it — several times.

Supplementary Readers. — It is a waste of precious time to read the primer and, at least, the first two readers of a series more than once. This does not necessarily mean, however, that a child should take the second reader as soon as he has read *one* first reader. It would be far better, as a rule, to read at least two sets of first and second readers before taking the next higher book in the regular series. These supplementary books are often convenient to use in testing the child's ability to read at sight. If the exercise chosen is somewhat simpler than that which he has been accustomed to read after study and contains but few new or difficult words, the pupil should be able to read it with a reasonable degree of accuracy and fluency. In order that the supplemental books do not become too common, it is not a bad plan for the teacher to keep them on her desk or on the shelves, except at such times as when she wishes the class to use them or when she allows a child to use one as a special reward or privilege. Their possession, then, becomes an honor, and the book itself, an object of respect.

Unless a book is very well graded, and sometimes even in such cases, it is frequently advisable to take the lessons in some other order than the one in the book. This may be due to a season, a holiday, to the study of some particular author, or subject.

Occasionally a part of each recitation should be used in discussing the meaning of the more difficult and unusual words and expressions, that these may become a part of the pupil's actual working vocabulary and insure a better understanding of future reading.

Synonyms and Meaning of Words.—An interesting drill at times is the finding of synonyms. The teacher may help by giving other sentences using the word in the same sense, then asking the pupils to suggest a new word meaning the same thing. This work may begin even in the primer and the first-reader classes and be given more and more attention as the grade advances. Too often it is taken for granted that a child knows the meaning of a word because it is small or because he has no difficulty in pronouncing it. A child who knows his phonics and can pronounce *hill* and *mill*, can also pronounce *rill*, but it is very probable that he may not know that it means a tiny stream. Likewise, he may know *book* and *brook*, but since in some sections the term brook is not commonly heard, he may not know the meaning of the word.

Reading the Lesson to the Class.—Some teachers make the mistake of reading the lesson aloud to the class, before they study it, as a part of the assignment. If this is to be read by the teacher, it should be after the child has done his best with it, aided by the teacher's questions and suggestions. If the teacher is a good reader, he can do a great deal to help and inspire his pupils, by reading much that is *good*, yet, at the same time, bright, interesting and suited to his hearers. Many things of this sort will bear frequent readings and will be liked better and be of more value, because of their repetition and familiarity.

Good Literature.—Some one has said that it is a crime to teach a child to read and not teach him what to read or not teach him to love the best in literature. There is so much that is *good* and within the comprehension of little children, that it is a waste of time to give them that which caters to no legitimate need in their natural development or that which is trashy. We must not forget that childhood revels in fairy tales and "make believe" and

the youth delights in the tales of adventure, of prowess and of chivalry. Each has a right to have his desire satisfied. One needs to choose carefully, to be sure there is some element of ethical good, though one is not compelled to lug in bodily the moral of each one and label it as such. It is sometimes well enough to let the moral suggest itself to the child's mind, even though it is not always the one the teacher would suggest.

In the "make believe" age, the flowers, the trees, the animals, all inanimate things must be made to live, to act, to talk. At the same time we are allowing the child to develop his power of imagination, it is often advisable to remind him, occasionally, that it is only pretence after all, in order that the too impressionable child shall not really come to believe, as true, much that is only legend or fable. This need not, however, be emphasized to the extent of deadening vitality or destroying interest, for such stories afford an excellent opportunity for obtaining that much desired characteristic of good reading, animated and natural expression, as well as helping to create and then supply a natural desire in this stage of mental development. "Blessings upon him who first invented books" and then upon the one who helps others to appreciate them.

Chapter III

LANGUAGE WORK

Importance of Subject. — A subject of vital importance in any school course, and yet one more often neglected than almost any other at the time when the utmost care should be exercised, is that of language. Language is both the science and art of expressing one's self accurately and easily.

Correct Habits. — It is one of the subjects which must be acquired by practice and example rather than by rule. Or, as one has put it, it is one that is "caught as well as taught." One may be versed in all the laws of the subject, may have them at his tongue's end, and yet display the most wonderful ignorance of their application and the greatest skill in disregarding and breaking them in his daily conversation and use. Bad habits of speech formed in childhood are hard to overcome. A child whose associates use good language, will himself form correct habits of speech by imitation without the aid of rules. If they talk not only correctly but well, he is quite apt to do the same. Hence, in primary language work, habits and practice are worth much; rules, but little.

Suggestions and Methods of Procedure. — Language is of two kinds, spoken and written. Since language work has to do so largely with the spoken word, the thoughtful, careful teacher finds no lack of opportunity to teach language even though his program is ever so crowded, and no time is available for separate daily recitations.

Almost every exercise offers many and varied opportunities for teaching this subject. In schools where errors in speech are habitual and constant, correction of errors must be as habitual and constant. While the vigilance may never be relaxed, yet the work must be done kindly and unobtrusively as a matter of course. If the child talking freely should say, "When I *come* to school," or "Tom and *me*," the teacher may say "When I *came* to school" or "Tom and I," and the pupil corrects himself and goes on without confusion or shame. But whether the work is written or oral, spasmodic attacks of care and exactness, no matter how energetically carried on, can effect much less than the quiet continuous efforts. Also, when the application of one principle has been made, every violation of that principle should be noticed until its improper use is the rare exception rather than the rule. Mastery is indicated by the correct use of the form without conscious effort.

Language has to do not only with the ability to express one's self, but also with the additional ability to express one's self well, that is, freely, easily, connectedly and interestingly. It not only enables a person to have something to say, but it gives him the power to say it. He who has suffered from the feeling that he cannot say what he wishes, or from the equally painful one that he has absolutely nothing to say, can realize what it is worth to a child or a man to have something to say and to have power to say it.

No one can express himself who has nothing to express. In this thought lies many a hint for the language teacher. Not the least element of her work is to see that the pupil's mind is supplied with material worthy of expression, and when this is done, there will be few who will not feel a willingness, even an eagerness to express themselves. The

expression will need to be directed, but this direction will be acceptable and valuable now, whereas, without the language material, it would have been meaningless.

Language work must necessarily be almost entirely oral for the first year, and largely so for a much longer period; the amount of written and really technical work increasing from year to year as the child advances.

The work may and should begin in the lower grades in connection with reading lessons and in conversation about things of general interest to the pupil. They are then apt to express themselves freely and are unconscious of any effort on the part of the teacher to form their minds or shape their expression. A child must talk, before the teacher can assist greatly in forming correct speech or aid materially in facilitating it.

Language may be taught incidentally in connection with all school subjects, in as much as correct language should be insisted upon at all times, but such exercises should not and cannot take the place of definite and distinct language work. Because the mind is occupied with the subject matter of the lesson rather than with the careful expression of the facts as an end in itself, expression in full, complete and careful statements discloses one's grasp of the thought of the lesson. Under such conditions, if one is called upon to express his ideas, he must systematize and formulate them and is thus given mental exercise. The attempt to recite under such conditions discloses to him what he knows clearly and what but poorly. Sometimes we think we know, but when we attempt to express our thoughts, we discover them to be hazy and disorganized.

The frequent writing of a paragraph or two in connection with the various lessons is a good practice, serving the double purpose of a short test and a language lesson

as well; but the thought should be emphasized that language work as language work should be given a place on the program.

Too often this work, instead of keeping the language element uppermost, is made to be an exercise in elementary grammar. This is especially apt to be true in the case of inexperienced teachers, for the reason that the technical matter is easier to present. It does not require as much skill or originality in presenting and it lends itself to being memorized in a parrot-like way by the pupils, thus making a show of knowledge whether its import is well understood or not.

Some of the technical work and the mechanics of composition, such as punctuation, capitalization, etc., are necessary as soon as the written work is begun. But the grammar feature should not be allowed to predominate during the first four or five school years. The business of this period is to gather ideas and thoughts, material to express, and marked ability to express it. The usual language book will be an aid to the teacher but should not be in the hands of the pupil before the fourth, or better, the fifth grade.

ELEMENTARY GRAMMAR

Some of the topics which may be presented orally long before it would be advisable to study a language book formally are:

1. The kinds of sentences, as to meaning, and their punctuation.
2. Quotations and their punctuation.
3. Possessives, singular and plural.
4. Use of capitals in sentences, proper nouns, poetry, quotations, I and O.
5. Contractions.

All of these may be studied as their use occurs in connection with the reading lessons. After that they may be reviewed frequently or noticed as they appear again and again in the various lessons. A very limited study may be given to some of the parts of speech; as the noun, pronoun, verb and adjective, but the following should receive more careful attention; viz., *a* and *an*; *this*, *that*, *these*, *those*; *is*, *was*, *were*; *has* and *have*; *lie*, *lay*; *sit*, *set*; *rise*, *raise*; *teach* and *learn*.

Pupils should not be given formal rules and definitions and asked to learn them. Instead, the rules or definitions should be developed in the class and the pupil led to formulate them from what he has actually seen or done.

For example, suppose it is desired to develop the rule that, "Most nouns form their plurals by adding 's' to the singular form," or that "Nouns ending in s, sh, ch, x or z make their plurals by adding 'es' to the singular form." For the first rule present a long list of nouns or write the list as the pupils give the nouns. Then ask them to give the corresponding word meaning more than one. Note how many of the words add "s" merely. Compare this number with the number that make their plural in some other way. What is the comparative number? Make other lists, have pupils make long lists, and compare as before. What may we say about *most* nouns? "Most nouns make their plural by adding 's' to the singular."

To develop the "es" rule, one might choose from the list already made those words whose plural is made by adding "es" to the singular; or a list of such words might be placed on the board by the teacher. Pupils should then give the plurals, spelling each one and telling what is added. Following are a few suggestions for such an exercise.

| | | | | |
|---------------|------|-----------|--------|-----------------|
| <i>dress</i> | plus | <i>es</i> | equals | <i>dresses</i> |
| <i>class</i> | " | <i>es</i> | " | <i>classes</i> |
| <i>dish</i> | " | <i>es</i> | " | <i>dishes</i> |
| <i>church</i> | " | <i>es</i> | " | <i>churches</i> |
| <i>watch</i> | " | <i>es</i> | " | <i>watches</i> |
| <i>bench</i> | " | <i>es</i> | " | <i>benches</i> |
| <i>box</i> | " | <i>es</i> | " | <i>boxes</i> |
| <i>fez</i> | " | <i>es</i> | " | <i>fezes</i> |
| <i>topaz</i> | " | <i>es</i> | " | <i>topazes</i> |
| <i>tax</i> | " | <i>es</i> | " | <i>taxes</i> |
| <i>wish</i> | " | <i>es</i> | " | <i>wishes</i> |

With what sound did the first word end? With "s." The word *dish*? The next word, and the next, etc.? With what other sounds than s, sh, ch, x or z did any of the words in the list end? Examination shows none; deduce from this illustration that, "Nouns ending in s, sh, ch, x or z make their plural form by adding "es" to their singular. (*Ox* is an exception to this rule.) In like manner we can develop the rules for other plurals, for the use of *a*, and *an*, *this*, *that*, *is*, *are*, etc. That which the child helps to develop and formulate has more meaning to him than that which he simply learns to repeat mechanically and of which he makes no practical application. It is unnecessary to learn many rules, but such as are learned should be definite and exact and should be developed carefully before they are memorized.

Discussions sometimes grow long over such questions as, "Shall we say noun or name word, verb or action word, or asking or interrogative sentence?" There seems to be a golden mean between these two extremes. In general, use the technical term from the beginning if its meaning is understood by the child, otherwise use a simpler term. For instance, the meaning of the term "action word" is easier for the child to comprehend than the word "verb," but we must make sure that only "*action*

words " are included under the term. In like manner, the term "asking sentence" has more meaning than interrogative sentence. Consequently one must exercise his judgment and present such matters in the way best suited to the needs of his pupils.

LANGUAGE PROPER

There is no end to the material that may be used for this work. It naturally divides itself into several groups or classes of exercises: observational work, picture stories, letters and other original compositions, paraphrasing, reproduction and dictation exercises. Variety is good but one should avoid scattering efforts.

Whichever plan is followed, the same line of work can be pursued through the first four grades simply by demanding more work and greater excellence from the classes as they advance.

As was said before, the work of the first grade must consist almost entirely of oral exercises, conversational in character. A few simple sentences and an occasional paragraph, which have been first written on the board, and noted with respect to capitalization and punctuation, are about all the written work that can with reason be expected from this grade. The second grade can do this and more. They command a larger vocabulary both in speech and in ability to spell, and may occasionally be expected to write an entire little story. They should be able to see, to think and to reason more clearly and deeply than first-grade pupils.

Observational Work. — The conversational and observational period gives much opportunity for nature study and there is endless material from which to choose. This should be as seasonable and appropriate as possible.

In the fall there may be study of some of the autumn flowers; the sunflower, the aster, the goldenrod; of the autumn leaves and the preparation of plants, animals and insects for winter. A little later some time may be spent in studying the familiar forms of moisture; such as, rain, mist, fog, dew, hail, sleet, frost and snow. Compare rain and hail, frost and snow, mist and sleet, dew and frost, fog and clouds, etc. We may call this work geography, nature work or what we please when it is presented, but in its final expression it is language work.

Another interesting topic for rural children is the study of birds. Pupils will be interested in observing their habits of migration, and many of their prominent characteristics; such as bills, bodies and feet of swimmers; legs and necks of waders; feet and bills of scratchers.

Thanksgiving time gives a chance to correlate language and history in the story of the Pilgrims and early life in the colonies. Christmas has its story, a many-sided one if we choose to make it so; and it affords a good opportunity to present some of the Madonnas. Though the little people need not be expected to analyze them critically, if they feel something of their meaning, that is sufficient. The feeling will probably reveal itself in speech.

Springtime brings more material than one can possibly use; seeds, their germination and modes of growth, signs of returning life in plants and all nature, resemblances and differences in flowers and fruit blossoms. It will be profitable to give some study to some of the more common botanical families, such as the rose family, to which most of our fruits belong, and the lily family, which is also very large. It is easily seen that from the nature side alone there is a limitless field upon which to draw for material.

Pictures. — Pictures are both interesting and helpful in language work. The power acquired in seeing things in the observational work is here put to another and further test. In the first exercise in which pictures are used there should not be too many details and the subject should be such as has meaning for the child mind and is pleasing to it. Pictures of children, their pets, their sports, and their work are good subjects. They should first be taught to see and express the large, distinguishing features. If a child says, "I have a picture of a little girl and her dog," it does not mean anything in particular; but, if she says, "I have a picture of a little girl teaching her dog to sit up in a chair and hold a stick on his nose," or, "In this picture there is a little girl lying fast asleep on the ground under a big tree with a big shaggy dog watching over her," we do not need to have the picture before us, because the mental eye can see the essential features unaided by the physical eye.

After the picture is generalized in this manner, the attention should be centered upon the lesser details in the order of their importance. Care should be exercised to see that the treatment is not given in a hit and miss manner. That is, when one has started in to describe the dress and appearance of the little girl in the above picture, he should not break off and give something about the dog and then return for some added information about the little girl. This is a most common fault in the work of beginners. They seem to find it difficult to hold the mind to a logical order until much practice has fixed it as a custom. This is the beginning of the work of paragraphing, for a paragraph is only a group of related sentences.

Another error to be guarded against is that of connecting entirely unrelated things by *and*. A question or a

suggestion will be sufficient to show that, since there is no relation in thought, there should be none in written expression. The other extreme is the use of too many short sentences, the monotonous repetition of the same form, as: "I see," "I see," "The girl is," "The girl has," etc. By questions or suggestions the teacher needs to show that the same thought may be said in many different ways. He needs to show also how a few details will enliven the otherwise commonplace and uninteresting story. Try to make the child see that he is to tell his story in a way entirely different from that in which any one else will tell it. Illustration: Any one can say, "The boy has a pair of new skates," but not every one would say, "The boy's skates, which seem to be bright and new, are hung across his shoulder by a long strap." Or it is perfectly correct to say, "The little girl has curly hair," but it is far more interesting to say, "The wind has blown one of the little girl's curls across her plump cheek."

In all original sentence work, if the teacher will emphasize the thought that each sentence should express an idea in the writer's own peculiar way, different from the way any one else would express it, he will accomplish many beneficial results in the field of story writing.

In picture work as well as in other composition exercises, careful distinction should be made between description and imaginative writing. Usually it will be sufficient to distinguish them by pointing out that the description tells what is actually seen or known, while in a story there is much "make believe." One writes what the picture makes him think might or would happen. It will be found that there is a decided tendency to mix the present and past forms, but this can usually be corrected before pupils reach the fifth grade.

Pictures to be used for imaginative work should be

such as are really suggestive, and then the mind should confine itself within reasonable limits and not imagine too much that the picture does not warrant. The mind may be directed into the proper channel by questions, and stiffness and bareness be avoided, by such suggestive questions as the following: "What did he have in the basket?", "What did he do with it?", "What did she say?", "What did he answer?", etc.

It is necessary to criticise written work and to note where improvement can be made; but it is as helpful and encouraging to call attention to any good sentences and paragraphs. This is helpful to the less skillful by showing them what is desirable.

Letter Writing. — Letter writing is an important part of language work. The greater part of a person's written work after leaving school is in this line. If one stops to think about it, he knows that the writing of friendship letters is an accomplishment of no mean sort, or art if you please, and that there are comparatively few artists. This is unfortunate, for next in importance to seeing and talking with our friends comes our correspondence with them. Who does not like to get a letter? But cannot every one recall with what little enthusiasm he has opened some letters and again how eagerly he has opened others? How anxious he has been to learn what the writer has to say, *to say*, for a letter is only a one-sided conversation with the pen, instead of the tongue.

The contents of the first letter mentioned above, if it be from a regular correspondent, can very nearly be told without reading. It is a series of stereotyped phrases about the weather and other items of equal interest, well intended but without character or special meaning. The second letter is filled with bright little things on commonplace subjects, perhaps — even health and the

weather as before, but they are said in a way they have never been said before and may never be said again.

The following will illustrate the two styles: One person will say, "I got up before sunrise this morning but the birds were singing gayly even then." The second person conveys the same thought in somewhat this style: "The sun has not shone for several days and, thinking that perhaps Mr. Sun might be displeased with the seeming lack of welcome in this lie-a-bed-in-the-morning community, I determined last night to give him a surprise, if he would but show his shining morning face to-day, so I arose, not bright and early, but just early. But the birds were earlier than I, and how they did sing. One bird near the house sang as though he were so full of music that he would certainly burst, if he did not discharge some of it from his beautiful little music box at once. It poured out so fast that I feared he would choke on some of the longer notes. One almost imagined he had been given a certain number of exercises to sing before he could have any breakfast and that he was so very, very hungry. At the same time he sang exultantly as though he had just heard that the last cat in the world had but recently been hung and the last boy with a sling shot had been banished from bird land for ever.

"But enough about birds, except to say it would be well worth one's time to rise before sunrise every morning, if he could hear such a concert as I heard this morning at so little expense — tickets: a few seeds, bugs, worms and berries, some water and a shady safe place for a nest. If you do not know what I mean, try the experiment and learn. It has made me feel like organizing a sunrise club."

There is no particular merit, except that of originality, in this extract, but it illustrates the point in question; one has told a common thing in an uncommon way.

Not every one is full of fancies, but if he is drilled carefully in telling of every-day experiences in a variety of ways, one need not always be painfully commonplace. Letter writing is a good form of composition for this kind of work. One writes about those things in which he is interested and to those who will be interested in the same things.

This is a point worthy of consideration in all composition work, and especially in the lower grades. Write about things in which there is interest if possible, but certainly write about something about which we have or can obtain some information, rather than about some abstraction, like "Cheerfulness" in which there is no cheer, or "Courage" which is performed with fear and trembling. There should be vital contact between experience and expression.

Some of the topics which may be used as the basis of school letters are telling of one's school work, subjects he likes best and why; describing a school game; telling about a special program, picnic or excursion; relating some story read; description of schoolroom; our Christmas tree; what I want to do or what I did during vacation; a walk, a trip to town; how I raised corn for the fair; my trip to the corn-judging contest; etc., etc.

While the body of the letter gives opportunity for the cultivation of expression, it also affords a field for study of the character of the writer. The letter is the most personal of all forms of composition and the young writer rather unconsciously puts himself into his letters and thus reveals his true self and gives the teacher a hint that may be of future value.

Letter writing is a good exercise in another respect in that, while there is great latitude as to body, or content, there is the greatest formality in other matters. Strict

regulations govern form and position of heading, address, salutation and superscription. Care should be exercised in teaching these, and frequent repetitions are necessary to fix them firmly in the mind. The things to be observed are few and simple, but exactness in this respect is the exception rather than the rule.

After there has been much drill on the ordinary or friendship letter, the more advanced grades may give some attention to business forms, invitations and replies, both formal and informal.

Reproduction Stories. — A reproduction story is one in which the form and substance are retained, but the exact wording is not followed.

Stories for reproduction should be such as are worthy of a place in the memory. They may be little myths, fables, stories of ethical value, with the moral not too evident, fairy stories and stories of people and things. As in descriptions and imaginative stories, the reproduction of these stories must be oral at first. Later they may be written.

The repetition of some of these stories may be a pleasing feature of the morning exercises. This offers an opportunity for their frequent repetition, so all may become familiar with them, and for many pupils to tell the same story without becoming weary of it. At first, it is quite likely that only the bare outlines will be given. This is better than nothing as a beginning, but one should not be satisfied with this long, for such work will develop little skill in the use of language. One of the objects of the reproduction story is to supply good material for increase of vocabulary as well as to cultivate attention and memory. The repetition of the actual words of the story will accustom the pupil to one use of these words. As far as possible, the meaning should be made evident, as

by this means many of the unusual words and expressions will gradually become a part of the child's own language stock in trade.

It is well for teachers to recognize that many of the expressions are figurative, and though full of meaning to the understanding mind, may be vague and confusing to the child. Care in this respect would cause fewer children to wonder why the boy "laughed in his sleeve," or how a horse could "eat his head off." Though it is better some misunderstandings than no understandings, yet children are capable of comprehending more, if rightly presented, than many people suppose.

Paraphrasing. — Paraphrasing may be considered as one form of reproduction work. It is a helpful exercise and its advantages are two. First, it requires careful inquiry into the meaning of the selection to be changed; and then it requires a re-expression of the meaning in pupils' own words. Paraphrasing bears some relation to translating from a foreign tongue into one's own. In an effort to translate the author's language it becomes a part of the translator's. The explanation of proverbs, maxims, etc., is a related exercise and is excellent to develop a pupil's power of expression and as a test of his understanding of figurative speech.

Dictation Exercises. — Dictation exercises are a good means of testing how readily a child can apply the knowledge he has gained. Short sentences and brief exercises may be given which will contain a vast amount of the mechanics of writing, such as: punctuation, capitalization, possessives, quotations, contractions, abbreviations, margins, indentations of paragraphs, etc. Dictation exercises should be corrected, at least have the errors indicated and returned to the writer for correction and re-writing. They are of no particular value to the child

unless this is done. As constant repetition of the act of walking at last produces an almost automatic action, so long-continued, painstaking, and well-directed practice in the art of writing and speaking will bring about a degree of excellence and facility in these lines which otherwise could not be expected. A child, to derive much benefit from dictation exercises, must have its errors indicated and the correct forms emphasized and impressed upon his mind by being required to rewrite the exercise correctly. In fact, it is a good plan to collect most of the written work. If it is thought the work is to be inspected, better work will be accomplished than otherwise would be. Often it pleases and encourages the children, if the best productions are preserved and exhibited on the wall or reading table. It makes the work seem of more value and consequence. This is true in other work besides language.

Lastly, if the teacher can create the idea that story telling and story writing is a great privilege and "lots of fun," he will simplify language work wonderfully. Children ought to, and do like to express themselves, when they have been helped as to what and how. They should be glad, rather than displeased, at the thought of a composition; and they will be, under the inspiration of a good language teacher.

Chapter IV

BUSY WORK, WHAT AND HOW

THAT mischief for idle hands to do will be found, is nowhere truer than in the schoolroom. Much of the dislike entertained by many little people for school is directly traceable to the dreadful monotony and dreary round of day after day with little else to do except to swing the feet and long for the home-going hour to come if one is disposed to be good, or to make things lively for the teacher and school if one is wide-awake and averse to losing any time.

As was said in a former chapter, the little people five or six years old, as the case may be, when they start in the rural school, cannot and should not be expected to "study" in the usual acceptance of the word. Too often this is expected and they are given a book. About the only result is, that the charm of the book is worn off before the child is able to use it to any advantage, and when he might use it he does not enjoy it because there is nothing new. Possibly he knows the stories, even though he cannot read them; and some of them at least he has droned over till no interest or life remains in them. Board work and busy work should fill the first two or three months of school life, and fill it so full that there is no need of a book to occupy the time.

Object of "Busy Work." — This is a much abused term. Too often it is thought of as merely something to consume

the time of the little people so that they may not be idle or have time for mischief. Were there no other purpose, this would be better than that they should learn habits of idleness only, but this is not the purpose of real busy work. Busy work in its true sense is real work. It is a manifestation of mind through matter before it can manifest itself abstractly. Its aim and object is to emphasize and drill upon instruction previously given or to prepare the way for that which is to follow. The child is not able to read or write, but he is able to think and to execute some of his thoughts by means of his hands and materials. If he is allowed thus to express himself, his school hours, which otherwise might be worse than wasted, may be happily and profitably spent and he may be gaining ability to express himself in other ways — may be laying the foundation for future building.

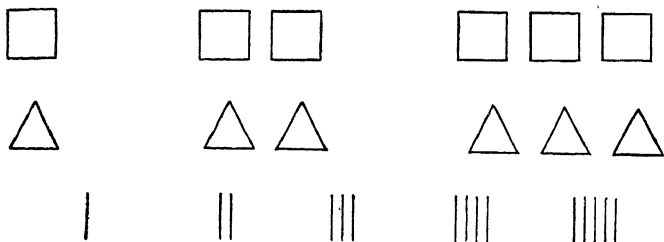
Even the child who can study is given new interest in his work, and will often gladly do tasks, such as making the combinations of twelve, or writing numbers in the Roman notation, if he is permitted to do so by using a number box, or cardboard forms, or colored toothpicks, or peg board, because it is a change and a rest from the usual work. We must not forget the truth that “variety is the spice of life,” and that children especially require frequent changes of occupation.

Many teachers fail to supply themselves with sufficient and suitable busy work because they think they cannot afford to purchase such material. Even were it necessary to buy the material at a considerable expense, it would be economy in the end. Much can be purchased at fairly reasonable prices, but much if not quite all of the more common and most essential supplies can be made by any one willing to give to the matter some time, thought and labor.

BUSY WORK FOR YOUNGER PUPILS

Number Work and Material. — In number work a child must learn to recognize numbers and figures. Often he can count to five or ten or farther when he enters the school, but this does not imply that he knows numbers. A slight examination usually discloses the fact that numbers are not known beyond three or four, or possibly five. After instruction in these matters is given in class, the necessary drill to fix it firmly may be given in a great many forms by means of busy work. Colored cardboard forms — squares, triangles, circles, etc., toothpicks, pegs, corn, etc., may be used. The cardboard can be obtained in sheets at a printing office and cut as desired. The toothpicks, the ordinary cheap kind, can be purchased in large-sized boxes for five cents and colored with Easter-egg dyes. These dyes can be had in eight colors for five cents. One package will color a great quantity.

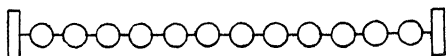
Ask the pupil to place one, two, three, etc., objects on his desk, using any of the above-named materials. For example:



Wooden beads, colored or plain, may be strung to illustrate the same numbers. When colored materials are employed it is well to use but one color for a single number, but different colors may be used for the different

numbers. The wooden beads, which may be purchased at almost any book store, come in the six standard colors, about sixty in a box, in three forms, spheres, cubes and cylinders. These may be strung on shoe strings, which are easily handled. The colors make the necessary divisions into groups. If smaller beads of one color are used, they are strung with coarse needle and thread, and little perforated cardboard forms are used to separate into groups. These little forms are placed in the boxes with the beads, so are always ready.

Many rural teachers can supply themselves with pretty red beads without cost by gathering wild rose hips — buds, as they are sometimes erroneously called. These hips may also be strung on wires, about twelve on each, and used as individual numeral frames.



Other beads may be made by cutting small cane or sorghum stalks in quarter-inch or half-inch lengths and perforating them with a large darning needle or wire so that they may be strung easily.

If one does not wish to purchase peg boards, which cost from ten to fifteen cents each, he may make them by taking a flat, smooth board about seven inches square, ruling it off into half-inch squares and making a hole at each intersection with a round or wire nail. The pegs themselves are very cheap and come in the six standard colors. The round ones are best for the peg boards, but the square ones are best for all general purposes.

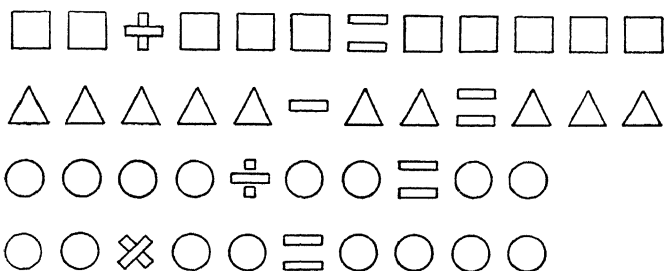
All grades, even up to the fifth, will think it great fun — no work at all — to make the Roman numerals with colored toothpicks or pegs, while to write them is some-

times a task. All numbers up to ninety can be made easily, and even *C* and *D* are not too hard.

I VI XIV L II C D MM

The forms shown represent all necessary characters.

All the materials already mentioned can also be used to make combinations of numbers, large or small. For example, toothpicks, using different colors to represent different numbers, may be used thus: || (red), ||| (blue), |||| (yellow), etc.; read, $2 + 3 = 5$. Pegs of one color may be used entirely to make, $|| + ||| = ||||$, signs and all. Corn — red, white, and yellow — can also be used. Lightweight cardboard or heavy paper forms may serve the same purpose. The forms are used to represent the numbers, and narrow strips and small squares to make the signs.



For a lesson in form and color, as well as in numbers, the above work may be written on the board with colored crayon ¹ and the pupils required to reproduce it in the

¹ A few sticks of colored crayons are of great assistance in primary work. Colors appeal to a child and afford him great pleasure. They offer a means of securing variety of work, and variety often means interest.

same form and colors. Do not hesitate to call all forms by their right names and teach pupils to do so. They will thus get much information without conscious effort.

Much of the work suggested above can be done before the child has learned to recognize figures. After he has learned these, he may be required to reproduce the above stories and many similar ones in figures, or the figures may be given and the child allowed to build them with the objects. Thus he associates numbers with figures. Later, the answers or any one of the figures may be omitted and the child required to complete the story. Again, he may be given the material and merely asked to form all the combinations that make five, seven, twelve, etc. In this last work, number boxes are very helpful. They are easily made from calendar pages of convenient size pasted upon heavy paper or lightweight cardboard and then cut into squares. The rulings on the calendar make the cutting very easy and save time and labor. The use of these cards is made much more convenient by writing the same number on the reverse side or by pasting two calendar pages together, though the latter would not give the same number on both sides. In case two pages are used, care must be taken to see that the rulings coincide, so that no difficulty shall occur in cutting. If the characters are written on the reverse side, the sheet should be ruled one way to agree with the ruling on the opposite side and then cut in the other direction. The writing is then easily done in the proper place. The blank squares may be used for writing the arithmetical signs and extra small numbers. There should be many more of the signs and of numbers up to twelve than of those beyond twelve, and some of these smaller numbers may be written on the reverse side of the large-number cards. These cards may be used by the beginners in

learning to associate name and figure. Pupils may find and place in order one to three, one to five, one to ten, etc., up to thirty or more if one chooses to add more numbers to the boxes. But when they have learned figures to thirty there is but little for them to learn between that and one hundred, except forty, fifty, sixty, etc.

Figures may first be placed upon the board, and the same ones may be found in the boxes by comparing them with the written ones. Afterward they are placed in order from memory. Thus, counting and figures are correlated. Then objects may be chosen to correspond to the figures. Figures and numbers are again correlated.

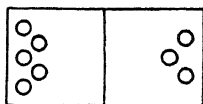
The use of the number boxes need not be confined to first-grade pupils. They can often be used advantageously by second- and third-grade children in constructing combinations and tables, and are a recreation and a rest from the constant writing of such work.

The toy alphabet and number blocks, which can be purchased for five or ten cents a box of from sixteen to twenty-five blocks, may be used by the first grade in hunting figures and arranging them in order, and may also be used by other grades in studying and building forms in the subject of cubic measure. In the same way the cardboard squares may be used in the study of areas and square measure.

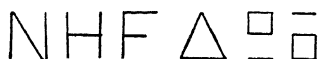
Dominoes, cheap sets of which may be had for five or ten cents, may be used as combination blocks, the combinations and answers to be written by pupils. Pupils may also be asked to find all blocks that have a four or a six, or all blocks whose combination is five or eight, etc.

Domino combination cards may be made by pasting dots or squares upon plain cards. The circles and squares may be purchased "ready gummed" or may be cut from colored paper and pasted.

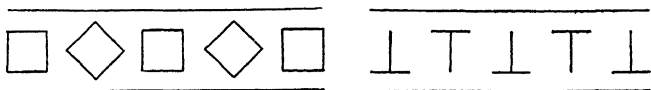
The groups may be of different colors or shape or may be indicated by spacing only. These may be used for class drill or for seat work.



Elementary Designs. — Many of the things suggested for use in number work can be used in drawing or design work. The geometric forms, the pegs, the toothpicks, etc., can all be used in making borders, outlines of familiar objects, etc. Single colors or harmonious combinations may be used. Forms found in primers, primary arithmetics and other books may be copied. Pupils may be asked to make all the designs they can by using three sticks, five sticks, etc. For example:



Repetitions of any of these forms will give a border.



Reading Helps. — In reading as well as in numbers much busy work may be employed profitably. Reading boxes are among the most useful supplies. As soon as a child knows a few words he should be given a box containing a number of copies of these words and be required to find as many copies of a given word as he can. Again, he may be asked to find a certain number each of several different words. Then a list of words may be placed on

his slate or on the board and he be asked to find each word. Later he may be asked to build sentences by hunting the required words from the box. At first one sentence is enough. Later several may be given. Again, certain unknown words may be placed in the box and the child asked to select all the words he knows and leave the others. This may be called gathering flowers, autumn leaves, making snowballs, catching fish, etc., according to the season, thus making it a game. If he can separate known from unknown one may feel reasonably sure that he knows the ones he chooses. If one makes use of phonograms in teaching reading he may ask a pupil to find all the *at*-words in his box — *cat, rat, fat*, etc. — or all the *an*-words — *can, ran, fan*. As new words are added to the list of known words they should be added to the boxes.

If one has access to a mimeograph, or any sort of duplicating machine, a large number of lists of the words learned and many sentences using these words may be struck off and used as review lists and reading exercises, as copies for tracing and writing, and the same lists, printed on heavy paper or cardboard, may be used to supply the reading boxes, thus saving the labor of writing. Several copies of each word should be in every box, and as in the case of the number cards, their use will be easier if the same word is on each side of the card. Sentences may be written with spaces wide enough between the lines to allow the laying of the corresponding word cards below the words.

Caring for Materials. — And now the question of securing boxes for all these various supplies is an important one. Without boxes or envelopes for each kind of material and for each pupil, the distribution and collection of the material takes too much time and is hard upon the

material. It is also a good plan to have each box marked with the name of the child who is to use it. This renders each child responsible, in a way, for the care and preservation of certain material. This is good both for child and material. The child should regard the latter as property, and should be taught to give it care and respect. He is thus taught early one lesson in good citizenship. The plan of having a certain box for each child is especially good if there is any reason why it is best that one child should not handle material used by another, and it avoids annoyance in the matter. Material that may be contaminated may then be destroyed easily without much loss.

All material should be collected at the close of an exercise and not be left to be handled at will by the pupils and become too common. An exercise should not be continued so long that pupils become weary of it, but each should be required to do the work assigned to the very best of his ability, be that great or small.

Thread boxes of all kinds are convenient and suitable for all busy work material, and they can be secured free from any dry goods merchant, if one will but ask to have them saved for him. Try to keep a few extras always on hand to replace those which become soiled or broken, and to receive new material which may be discovered or invented from time to time.

BUSY WORK FOR OLDER PUPILS

Language, Reading and Spelling Helps. — Additional busy, or occupation work, in language, reading and spelling for older pupils is found in the following exercises: Pupils may search for and make lists of all the name words, or nouns; the action words; the describing

words, or adjectives; the singular nouns; the plural nouns; possessives, or contractions, etc. Or, he may copy a certain number of sentences of the various kinds or all the sentences containing quotations, possessives, proper nouns, contractions, etc. Again, he may find all the words he can beginning with a certain letter of the alphabet, as: all the *a*-words, all *b*-words; or, he may take the letters in order, finding a word for each if possible, as: *apple, baby, cannot, doll, every*, etc.

Incidentally, the child is studying the reading lesson again, willingly and advantageously, which he would not do if he were merely asked to study his lesson again. He would be apt to think he knew it well enough and resent being asked to "waste more time" on it. More than that, he is unconsciously getting spelling, punctuation and arrangement. A little booklet may be made of a few sheets of tablet paper folded once, with, perhaps, a colored cover, and tied with a colored cord. These may be used in second and third grades for writing the lists of words mentioned and called spelling books or word books. They will help to make willing workers. Pupils may occasionally be asked to study their *a*-words, their *b*-words, etc. The fact that they are not all exactly alike will not prevent their being beneficial.

An old exercise, but a good one to aid in spelling and to quicken observation, is to give pupils some long word like *Madagascar, recognition*, or some such word and let them make as long a list of words as possible, using only the letters found in the word and using them no more times in any one word than they are actually found in the given word, as: *Recognition*, — *cog, cot, core, coin, cone, tin, ton, tone, tine, tire, tore*, etc.

Color and Form Work. — Color and form work offer a number of opportunities for seat work. First, there

are scissors and plain paper. The pupils may cut definite forms, squares, circles, triangles, or fruits, vegetables, etc. There are usually simple drawings of objects in the primers or number books, which the little people may try to reproduce by cutting, drawing, or stick-laying. Cardboard geometric forms or objects may be traced, if pupils are unable to draw them, and then colored with drawing crayons, one object of coloring being to get a nice, smooth coat of color, and another one to confine one's self to the boundary lines, — not an especially easy thing for little people to do.

Another occupation is the cutting out of pictures from catalogues, newspapers and similar sources. These may also be colored, if desired, though the cutting is the main point, because it demands care and attention and trains to accuracy. Insist upon pupils being careful of scraps. Try to keep them from the floor and gather any that chance to fall.

In the autumn, leaves of many shapes may be traced, or drawn and colored. This calls attention to general shapes and to character of margins. The teacher may trace leaves on cardboard, then perforate them, and use them for sewing cards if she wishes.

Busy work involving comparison may be done by using pegs, splints and cardboard forms. Make a line one unit long, two units, five units; make square figures one unit each way, three units, six units; make rectangles one unit by two units, one unit by three units, etc.

Geography Helps. — In geography, the extension of this work gives drawing to scale. An occasional exercise like the following may serve as seat work. A section of country is 100 miles \times 60 miles in dimensions. Draw plans on the following scales:

1" equals 10 miles,
1" equals 20 miles,
 $\frac{1}{2}$ " equals 20 miles,
 $\frac{1}{8}$ " equals 10 miles.

Plans of more or less irregular fields, gardens, yards, etc., whose dimensions embrace rods, yards and feet may be drawn on varying scales also. Little diagrams may be made and called maps and the directions marked upon them, first, the cardinal points, later the intermediate points also. Cut-up maps may be properly assembled or the sections used for tracing or drawing. The cut-up maps may be purchased at a toy store or old maps may be pasted on fairly heavy cardboard and then cut on boundary lines, except in the case of the very small states. Several of these may be left connected.

Many of these exercises will doubtless suggest others to the teacher who is eager and alert and any and all of them may be adapted to suit the occasion and the means of application. Without the ability to adapt, many of them may lose their vitality and, hence, much of their effectiveness. Well used, they will lessen the weariness of mind and body of many a child in his "first days" or first years in school.

When one really begins, he will discover in many things possibilities which he little suspected. And when one once discovers how much is added to the effectiveness of his work and to the pleasure of his pupils by "busy work," he will never willingly be without a considerable amount and variety of such supplies, even at the expense of some money and considerable time and labor in its preparation.

Chapter V

NUMBERS

THE NUMBER IDEA

IT will greatly aid in the teaching of numbers or arithmetic to have a clear notion of the number idea. Without this knowledge the teacher is at sea, not knowing whither he is going or which way he should steer his course. For our present purpose it is not necessary to go into the discussion as to the exact meaning of the term "number," but it will be sufficient to know that it is an abstraction and is gained in the same way in which any other such idea is gained. One gets his conception of the abstraction "redness" in some such process as the following; viz., he sees a red flower, a red ribbon, a red dress, a red sky, etc. After a time the mind eliminates or abstracts all material from these ideas and leaves the idea of redness. By a similar process the child gets his idea of number. He gets his idea of the number two, not from the contemplation of the figure 2, but from seeing, using, and handling objects, as *two* ears of corn, *two* horses, *two* eyes, etc. Indeed, he should have some notion of two before ever the figure is presented for his consideration and his conception of two should be quite clear before he is given such a problem as: *1 and 1 equals?* In "The Psychology of Number," by McLellan and Dewey, number is defined as "The measure of quantity." It has also been defined as "The measure of the relation of things of the same kind,"

and "That abstract species of quantity which is capable of being expressed by figures." The old definition of number as a "unit or collection of units" is not technically true. One cannot see three, but may see three horses, three dollars, or three fingers. That our number idea is something apart from the objects is evident from the following: If a number is a collection of units, two crayons is a collection of units and is the number *two*; for a similar reason two dollars is *two* also; but number *two* must equal number *two*, hence two crayons equal two dollars, which is absurd. To every mature mind the number idea in these two groups of objects is the same, but it is apart from the objects themselves.

OBJECTS OF NUMBER TEACHING

With the above brief discussion of the number idea as a starting point, it may now be in place to consider the objects of number teaching. By *numbers* is here meant the whole subject of arithmetic as taught in the common schools.

1. To Develop the Number Idea. — The first object of number teaching should be the development of a correct number idea. If this is an abstraction as suggested above, it indicates that objects should be used in the development of this idea, and that there should be a variety of objects. If a child never saw any red object except a red rose, he would never get the notion of redness apart from a rose; it is necessary that he see a number of red objects. So with the child in getting the number notion, he should receive it from a variety of objects. Not from three fingers alone, not from three marks on the blackboard only; but from three fingers, three chickens, three pigs, three yards, three pints, etc. The lack of a variety of ob-

jects and a proper use of them may be the cause of the bad practice so common in our schools of counting in addition instead of adding. The counting of the fingers or the making of dots on the blackboard in addition and subtraction should never be allowed to become a habit. For example, 4 should mean more than 3 and 1. It should mean just as clearly 2 and 2, 1 and 3, four 1's, 5 less 1, and perhaps also, one and one third threes, etc. When the number 4 is known in this way, a child will hardly want to count it by 1's if asked to add 2 and 2.

On the assumption that number is "measured quantity," G. B. Longan, formerly Assistant Superintendent of Kansas City, Missouri, devised a system of number work in which all the smaller numbers and many others up to one hundred are developed by a process of measuring. Units of measure, such as the quart, the yard, the nickel, the foot, the dime, the pound, etc., are used in the development of various numbers. There seems to be a fascination and interest about this system because it deals with actual units of business life. In the study and development of *two*, the quart, among other things, is used; with *three*, the yard is used; with *five*, the nickel; with *ten*, the dime, etc. This is a very complete system and one by which fractions and the various number phases may be represented and almost marvelous results attained. (See Longan's "First Lessons in Arithmetic.")

In the early stages of a child's study of numbers he should be asked to compare quantities, or use his judgment as to the length of lines, the width of the blackboard, the height of the ceiling, the width and length of a book, etc. He may be asked to draw a line on the board one foot long, another twice as long, another half as long, etc. As this is being done, other members of the class may be called upon to correct or corroborate

his judgments, and in the end all this work should be tested by an accurate measure.

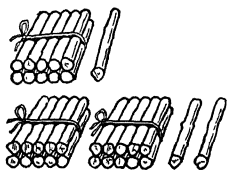
In the acquisition of the number notion, some attention should be given to the grouping of objects. At first it may be necessary to count in order to select certain groups of objects, but it should be the aim to get pupils to recognize the number in a group of objects as soon as possible. This is not particularly hard to do up to five, but a little experimenting will disclose that groups larger than five often require separation into smaller groups for ready recognition. But this affords good opportunity for drill on combinations. Groups of actual objects, objects in pictures, and groups on the numeral frame are all good material for such drill.

2. To Give Skill in the Manipulation of Figures. — The second object in the teaching of numbers or arithmetic is to give skill in the use of figures. It is not sufficient to grasp a number idea, but one must learn to represent that number by symbols or figures and acquire dexterity in the use of large numbers beyond the mind's actual comprehension. Thus far in the study of numbers, there should have been much concrete work in which numbers were represented by objects, but comparatively little in which numbers were represented abstractly by the use of figures. The child now needs to learn to read and write numbers, to add and subtract, multiply and divide numbers which are beyond the range of concrete representation.

Reading and Writing Numbers. — It is not to be understood that no use of figures will be made in the early part of number work, but on the contrary, as soon as the child has the conception of a number, it may be represented by its appropriate symbol. By this means, as soon as the children are able to write, much seat work

can be given and thus the lessons taught in class can be strengthened. In the second or third year, when the time comes that they should learn the art of writing numbers, they should early learn by the use of the splints that, "Ten units of one order make one of the next higher." For this purpose prepare bundles of tens (by binding ten splints or toothpicks with a rubber band), and bundles of hundreds (ten bundles of tens).

Eleven will require one bundle of tens and one separate splint, twenty-two will require two bundles of tens and two separate splints. By such concrete examples pupils will soon get a clear conception of the method of representing numbers by figures.



The difference between a place or order and a period should be noted; the fact that a period contains three places or orders; and that the names of these periods, *thousands*, *millions*, etc., are relatively the same as a person's family or surname, as Smith, Jones, or Brown; that each family always lives in the same relative position in respect to every other family; e. g. the *thousands* always live in the next house to left of *units*, the *billions* family in the fourth house, may all be made interesting features to a class of beginners in the art of reading and writing numbers. Continuing the figure, one may say that each family lives in a house of exactly the same size, each having just three rooms. The room on the right is always occupied by the *units*, the smallest members of the family; the next room is occupied by those next in size, the *tens*; and the third room by the largest members, the *hundreds*. There may be any number from none to nine in a room. Since there must always be three

rooms in each house, if there is no one living in one of the rooms, a sign is put up to say that it is empty. The sign is always the same, "O," naught. The figures always show how many *units*, *tens* or *hundreds* of a family live in each room.

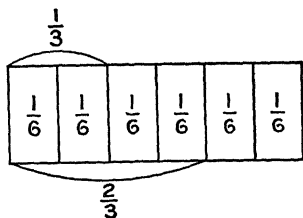
The Roman notation is little used and should be taught incidentally as it is presented in the readers and elsewhere. Little formal work will be necessary or profitable.

Formal Work in the Fundamentals. — As has been indicated, much work in addition, subtraction, and so forth will have been done before a presentation in a formal manner, but when it comes time to add numbers represented by figures, such as 24 and 32, the numbers should be represented by means of splints, the 24 by two tens and four ones or units, the 32 by three bundles of tens and two units. The addition consists simply in uniting these two groups which will give five bundles of tens and six units. Whenever the separate units will make a bundle of tens they must be combined into such a group. By a similar process subtraction and multiplication may be illustrated. Suppose it is given to divide 33 by 2. The number 33 may be represented by three bundles of tens and three ones. Dividing by 2 means finding how many twos in 33 or separating 33 into two equal parts. Taking the second conception for illustration, the tens may be separated by putting one bundle in one place and another in another place; one ten will be left which will have to be broken into ones before it can be divided. Doing this and adding them to the other ones there are now thirteen ones; six of these may be placed with one ten and six with the other; this still leaves one unit which has not been divided; it will have to be broken and one half put with each group, thus making $16\frac{1}{2}$ in each place. The custom of saying that 33 divided by 2 gives 16 and 1

remainder is a questionable practice and leaves the child mind in doubt as to the meaning of the "one over," or remainder. By some such process, concrete illustrations can be given for all the fundamental operations. This should be done so that the child may get clear conceptions of these processes.

Fractions. — Pupils should begin the use of fractions from almost the very first. If concrete illustrations are used, a child can grasp the idea of one half about as soon as he gets the notion of two. If as suggested before, a unit be taken which may be divided into other units, as the quart, yard, nickel, etc., he will have little trouble in getting the notion of one half, one third, one fifth, etc. This will give him the idea that a fraction may express a relation or ratio and that it is not necessarily a part of a unit. He will have no trouble in comprehending that one pint is one half of a quart, that one foot is one third of a yard, that one cent is one fifth of a nickel, that one inch is one twelfth of a foot, etc.

The teacher can lead his pupils to a more general notion of fractions, if he will but make sure that the terms *halves*, *fourths*, *sixths*, etc., are understood to be the names of *parts*, and may be treated as so many apples, boys, pencils, etc. Two fifths plus one fifth need give no more trouble than 2 apples plus 1 apple. The above example may sometimes be written 2 fifths and 1 fifth. To illustrate the reduction of a fraction to other terms, the rectangle may be used. The accompanying rectangle divided into sixths may be used to illustrate that two sixths equal one third, that four sixths equal two thirds.



By dividing the rectangle into other parts the common denominators of other fractions may be illustrated. Again, it is quite easy to show that two cents are one fifth of a dime, that three inches are one fourth of a foot, etc. Begin the use of fractions early in concrete ways and in connection with other arithmetic work and never allow them to become a bugaboo.

Drill. — To know how to add and subtract, to multiply and divide both simple and fractional numbers is not enough; there is need of accuracy and speed. These can be attained only by drill and rapid work: 7 and 4 should mean 11 just as readily as two ones (11) mean eleven. Three times 7 should mean 21 without any hesitancy. The forty-five combinations of addition should be thoroughly learned and drilled upon in order that addition may be rapidly done and become more than a counting-by-one process. There should be much counting by 2's, 3's, 4's, etc., beginning first with 2, then with 1, then with 3, as the case may demand. For example, in counting by 2's begin 2, 4, 6, 8, etc., next, 1, 3, 5, 7, 9, etc. In counting by 3's begin, 3, 6, 9, etc., next, 1, 4, 7, 10, etc., then 2, 5, 8, etc. This drill work is more or less abstract and should follow the work of development suggested on previous pages in this chapter.

The combinations in multiplication should be presented in various forms, other than those found in the usual textbook. For example, an oral drill on the multiplication table may be given in this manner: 2 times 3 equals? 2 times 4 equals? 3 times 3 equals? 2 times 5 equals? 2 times 6 equals? 3 times 4 equals? 2 times 7 equals? 3 times 5 equals? 2 times 8 equals? 4 times 4 equals? etc., the teacher keeping in mind the results of the multiplication table, as 16, 18, 20, 21, 22, etc., and giving the pupil the combinations which produce

these results. This work should be rapid fire, questions and answers, with no time for formalities.

Visual Forms. — The form in which the work is placed before the eye is often suggestive and helpful. Instead of writing the example $3 + 4$, it is perhaps better to write it $\begin{array}{r} 3 \\ +4 \end{array}$, the “+” indicating addition. Subtraction

and multiplication may be written thus: $\begin{array}{r} 7 \\ -3 \end{array}$, $\begin{array}{r} 7 \\ \times 3 \end{array}$. These are more nearly the customary forms of business life. A

convenient way of expressing division is thus: $\begin{array}{r} 109 \\ 4 \overline{)436} \end{array}$.

This becomes quite convenient in the division of decimals, for example:

$$\begin{array}{r} 2.5 \\ 25 \overline{)62.5} \end{array} \text{ or } \begin{array}{r} 1500 \\ .15 \overline{)225.00} \\ 15 \\ \hline 75 \\ 75 \\ \hline \end{array}$$

Dividing 225 by .15 we move the decimal point two places to the right and place the decimal point in the answer when we come to it in the process of division. If required to add fractions the following is a good form:

The common denominator 60 is found and placed below the line and the sum of the several numerators, or 139 is placed above this common denominator. This fraction is simplified and added to the sum of the whole number. Never reduce such examples to improper fractions.

$$\begin{array}{r} 36\frac{2}{3} \\ 41\frac{1}{2} \\ 16\frac{2}{5} \\ 87\frac{3}{4} \\ \hline 182\frac{19}{60} \end{array} \begin{array}{r} 40 \\ 30 \\ 24 \\ 45 \\ \hline 139 \end{array} = 219\frac{19}{60}$$

Good forms and neat work on blackboard, slates and tablets is worth while. The following are some good forms for seat work.

| | | | | |
|----|---|---|---|---|
| 1. | $\begin{array}{r} 3 \\ + 4 \\ \hline ? \end{array}$ | $\begin{array}{r} ? \\ + 4 \\ \hline 7 \end{array}$ | $\begin{array}{r} 3 \\ + ? \\ \hline 7 \end{array}$ | $\begin{array}{r} ? \\ + ? \\ \hline 7 \end{array}$ |
| 2. | $\begin{array}{r} 7 \\ - 4 \\ \hline ? \end{array}$ | $\begin{array}{r} 7 \\ - 3 \\ \hline ? \end{array}$ | $\begin{array}{r} 7 \\ - ? \\ \hline 4 \end{array}$ | $\begin{array}{r} 7 \\ - ? \\ \hline 3 \end{array}$ |
| | $\begin{array}{r} ? \\ - 4 \\ \hline 3 \end{array}$ | $\begin{array}{r} ? \\ - 3 \\ \hline 4 \end{array}$ | $\begin{array}{r} ? \\ - ? \\ \hline 4 \end{array}$ | $\begin{array}{r} ? \\ - ? \\ \hline 3 \end{array}$ |
| 3. | $\begin{array}{r} 4 \\ \times 3 \\ \hline ? \end{array}$ | $\begin{array}{r} 3 \\ \times 4 \\ \hline ? \end{array}$ | $\begin{array}{r} 3 \\ \times ? \\ \hline 12 \end{array}$ | $\begin{array}{r} 4 \\ \times ? \\ \hline 12 \end{array}$ |
| | $\begin{array}{r} ? \\ \times 4 \\ \hline 12 \end{array}$ | $\begin{array}{r} ? \\ \times 3 \\ \hline 12 \end{array}$ | $\begin{array}{r} ? \\ \times ? \\ \hline 12 \end{array}$ | $\begin{array}{r} ? \\ \times 2 \\ \hline 12 \end{array}$ |
| 4. | $\begin{array}{r} 4 \\ ?) \overline{12} \end{array}$ | $\begin{array}{r} 4 \\ ?) \overline{8} \end{array}$ | $\begin{array}{r} 5 \\ ?) \overline{10} \end{array}$ | $\begin{array}{r} 2 \\ ?) \overline{4} \end{array}$ |
| | $\begin{array}{r} ? \\ 2) \overline{6} \end{array}$ | $\begin{array}{r} ? \\ 3) \overline{6} \end{array}$ | $\begin{array}{r} 3 \\ ?) \overline{9} \end{array}$ | $\begin{array}{r} 4 \\ 3) \overline{?} \end{array}$ |

Though it may seem a waste of time and though it often grows monotonous to the teacher, nevertheless, vigorous and judicious drill on the fundamentals is the highest type of economy. It not only saves time directly in the work of performing these operations in later years, but it gives the pupil confidence in himself, and in after days,

when he comes to solve problems, he will not lose so much time from making mistakes in the fundamentals, and be led to think that he is working problems wrongly. Drill, drill, drill, but never let it grow monotonous or dull. Pupils enjoy lively, rapid drill in a variety of ways.

3. To Develop Thinking and Reasoning. — The third object of arithmetic teaching is to develop clear thinking and reasoning. There is a good deal of loose, inaccurate thinking in our schools. The teacher asks a question and the pupil gives a word or two, merely hints at the answer, and it is passed as good. It is not good, for the pupil has only a hazy idea of the correct answer asked for. He should be required to clarify his thought by stating it definitely in words. The accurate expression of an individual's own thought must be preceded by a clear impression of the idea. The teachers of the past generation required their pupils to learn the rules and definitions "by heart," and oftentimes they received only "words, words, words." The pendulum has swung to the other extreme, and now the teacher gets little of either words or thought, in the pupil's reply.

Mathematics is an exact science and, in a sense, one reply is right and all others wrong; one answer is correct and all others incorrect. In the arithmetic class the teacher has the best opportunity offered anywhere in the school for teaching accuracy and exactness, for requiring clear thinking through exact expression.

To accomplish similar ends, there should be much analysis in the arithmetic exercises. This process is simply thinking accurately the parts or conditions of the problem and then giving the thought clear expression. Pupils can acquire no better habit than that of logical and accurate thinking and clear expression. This, analysis will give if well taught.

Below are given a number of forms for analysis of the fundamentals in arithmetic. Let the teacher not mistake the author's purpose in giving them. They are not to be learned and fitted to the problem; this could be done with little or no thinking. The thinking should precede the expression, not the expression the thinking. These are goals towards which the teacher should lead his pupils in their thinking and reasoning, and when they have thought the conditions clearly, in general, the expression will take care of itself.

A FORM FOR ADDITION

Example: A boy paid 5c for a pencil, 10c for a tablet, and 20c for a book; how many cents did he spend in all? *Analysis:* If he spent 5c for a pencil, 10c for a tablet, and 20c for a book, he would spend for all the sum of 5c, 10c, and 20c, or 35c.

A FORM FOR SUBTRACTION

Example: A boy had 12 marbles and lost 4 of them; how many had he left? *Analysis:* If a boy had 12 marbles and lost 4 of them, he would have left 12 marbles less 4 marbles, or 8 marbles.

A FORM FOR MULTIPLICATION

Example: If one pencil costs 5c, what will 6 pencils cost? *Analysis:* If one pencil costs 5c, six pencils will cost 6 times 5c (not 6 times 5, 5 times 6 cents, or 6 pencils times 5c), which is 30c.

FORMS FOR DIVISION

(1) *Example:* If 6 hats cost \$30, what will one hat cost? *Analysis:* One hat will cost one sixth of \$30, or \$5. (No use for the expression "as many as" in this form.)

(2) *Example*: At \$6 each how many hats can be bought for \$36? *Analysis*: As many hats can be bought for \$36 as \$6 is contained times in \$36, which is 6 times, or 6 hats.

4. To Give Ideas of Certain Commercial Forms and Practices. — This gives rise to the teaching of percentage with a number of its applications, and denominate numbers with problems illustrating many business usages. All this should be brought, as nearly as possible, within the range of the pupil's experience. No textbook can give sets of problems which will suit all the schools into which the book is likely to come. It remains for the teacher to make many problems for his pupils so that the school and the home will be brought close together and more or less united in the work of rearing the young. If the school be in the country, there should be many problems relating to the farm, — to agriculture, stock raising, home economics, etc. It should be the aim of the teacher to make this part of the arithmetic very *practical*. The following problems are offered as suggestions.

John's father had a field of 40 acres of corn which produced 37 bushels per acre. It was worth 64 cents per bushel. How much did he make on this field, providing he spent 20 days plowing, 3 days harrowing, 24 days cultivating, 3 days for an extra man in planting, 3 cents per bushel for husking, and rent of the land was worth \$5 per acre? The price of team, man and corn should all be determined by prevailing prices of the neighborhood, indeed the whole example should be suited to some boy's or girl's home condition.

This problem might be changed or enlarged in the following manner: Would it pay better to sell the corn or feed it to hogs at the present market price, or would it

be more profitable to make silage of the whole crop and feed it to the cows? Would it pay better to churn the cream when butter is 25 cents a pound or sell it providing butter fat is 28 cents a pound?

Mary's mother has a flock of 100 hens. She feeds them a peck of oats and 5 pounds of bran per day. Twice per week she gives them ground bone or blood meal costing 25c. In the last month she has spent 50c for medicine. They are averaging 3 dozen eggs per day; have they been paying for the last month? The problem may be extended for the whole year, bringing in the varying conditions of the different seasons.

A man had \$7000 in cash which he deposited in the First National Bank. He bought a quarter section of land, for which he paid \$15 per acre. He bought a team of mules, a wagon and harness. He bought posts, barbed wire and staples with which to fence the farm. He also bought fencing, posts and nails with which to fence a barn lot 10 by 12 rods. He bought lumber and built a barn, a house, sheds, chicken house, etc., etc., etc. He bought plows, mowing machine, rake, etc. He planted his crops and reaped his harvest, cut his hay and put it into barn and stack, etc. This can be continued indefinitely, so that a review class may find work here for the whole winter.

The class should be required to compute the number of posts required for fencing the farm, the wire and the staples, and the cost of each. The amount and cost of lumber, nails, etc., for the barn should all be computed by the members of the class. The size could be agreed upon by the class, and the price of labor, lumber, etc., should be determined by the local markets. The number of tons of hay in barn and stack should be computed by rules found in the arithmetics and elsewhere. The cost

of planting, plowing, harvesting, etc., and the profits from a field should be computed, using data from neighboring farms. Notes should be given and received and the interest reckoned. In fact, all the transactions likely to occur in the course of a farmer's business life may be brought into this problem. This plan of arithmetic teaching has been tried, and it proved very interesting to the class.

Superintendent Jessie Field of Iowa has published a little book full of problems for the rural schools, but "ready-made" problems are not to be compared to "homemade" problems which bring in actual conditions as they are in the pupil's home.

There are probably other objects for the teaching of arithmetic but it does not come within the province of this book to treat them further.

Chapter VI

LEARNING TO WRITE

TEACHING THE BEGINNERS

Writing an Art. — Writing for the little people! What shall they do? When? How? These are the points worthy of consideration. Children often know something of words and of number when they start to school, but seldom do they know anything about writing. Learning to write is not the simple or the inconsequential thing that it is often thought to be. It approaches a fine art in nature and requires both mental effort and muscular skill. The muscles cannot execute well until there is both a clear and an exact mental image of the thing to be executed. Even then the muscles cannot execute the mental picture until they have been brought under subjection to the mind by frequent and painstaking efforts. After the muscles can execute the will of the writer, the writing will improve as the mental image becomes more ideal.

Eternal vigilance is the price of good penmanship, and in this case, as in many another, "There is no excellence without great labor." When children enter school their muscles are entirely untrained in such exercises as are required in writing, and, for the reasons just stated, writing, if it is done in a painstaking manner, is in its first stages an exacting and a fatiguing exercise. Whenever

a child has tried faithfully and done creditably well, his work should be encouraged and commended. If the teacher can say, "This is a fine word," or, "Why, this is almost as good as mine; now let me see if you can write this word just as nicely," he is quite sure to get an earnest effort at least. It is not then so discouraging to the child to be shown his errors and their corrections.

When and How Much. — Good authorities differ concerning the advisability of requiring little people of five or six years of age to write at all, but most teachers begin the work of teaching about as soon as the child enters school. A reasonable amount of such work is not too much for the child to attempt; but all agree that no long-continued efforts should be required in the initial stages of the work. The necessity for early writing is the greater in those schools where the teacher does not have a considerable amount and variety of seat work to keep the little pupils employed in helpful and pleasant occupations. But, it is under precisely these conditions that the child is apt to be asked to write too much. The teacher wishes to keep him busy, and it is an easy way to say, "Write all the lesson," or, "Write this sentence ten times," etc. Pupils should be kept busy during their school hours, but a writing exercise should have a more important purpose than merely to keep pupils occupied.

It is under these conditions, also, that the exercise is apt to be done carelessly and so do more harm than good. Only some unusual condition or circumstance should ever make a teacher willing to accept written work which is not done to the best of the pupil's ability. Such work is not only detrimental to the penmanship itself, but also allows the child to form bad habits in general.

First Lessons. — The child's first writing ought to be almost entirely blackboard work, because the characters

may be made much larger and with easy, free, muscular, movements. It avoids the cramped position of the hand apt to be assumed in grasping a small, and sometimes a short, slate or lead pencil. His muscles should not be taxed with making small, fine characters, until he is able to make the forms fairly well, at least, in large characters, with free movements. He should also write without lines and spaces, as he finds the forms themselves difficult enough to occupy his attention without the added effort of "keeping on the line" and confining himself to space limits.

It is better, in the beginning, that the pupil should see the teacher write the word or exercise which he is to copy. This gives him the benefit of seeing how it is done. Even older people, those of mature minds, can often perform a task or an exercise more easily after having seen it done than they could have done without the illustration. Little folk need the example of "how to do" even more. The teacher, too, by this means, is better able to call attention to the point of beginning, the nature of strokes, particular turns, and any peculiar or difficult parts of a word or letter.

While one of the points for which we strive in more advanced writing is speed, the main points in primary writing are form, and good habits of position and movements. In the first respect, on account of its slower movements and attention to details of form, the subject is somewhat related to drawing.

MATERIALS

Use of Copy. — It is scarcely wise or profitable to ask or allow a child, who is just learning to write, to repeat an exercise more than two or three times from a single

model form, for the reason that he is apt to observe the copy less and less carefully as he gets farther and farther from it. This is not applicable to beginners only, for, though it should not be, it is often true that the more advanced pupils' copybooks show poorer writing on the last line of a page than on the first line. On this account, it would be beneficial if, instead of only one model form on a page, all lower-grade copybooks had two, or even three. It is not a good plan to require beginners to copy words or sentences from the board while at their seats before they have learned to write quite well. It is impossible to see the characters and to write at the same time. It is too difficult for them to keep the whole form in mind while writing the word, and, unless one can do so, continual halting is necessary while the eye travels back and forth from board to desk.

Making Copies. — To save time the teacher may prepare many copy slips which he may distribute to the class to be copied on slates or paper. They have the advantage of being movable and may always be placed just above the line which the pupil is writing. By this means he may cover his own cruder efforts and keep the model constantly before him. With impression paper, a number of copies of the same specimens may be made, or a number of different specimens may be made and, by exchanging the copies, a set will last a class for some time. Another time saver is to have the little people first find certain words or build a sentence from the script word in their reading boxes, — see use of these boxes under Reading Seat Work, — and then copy these same words or sentences on slates or paper. If a person has access to a duplicating machine of some sort, sheets of sentences may be prepared which may be used as reading lessons and then preserved for writing purposes.

Do not teach or allow the pupils to print. It is a waste of time and serves no particularly good purpose, as there are but few times, either in school or out, when one has occasion to use it. Those who need it can learn it when the need for it occurs. Then, too, its use develops the finger movement.

Writing Material. — As has been suggested already, the first writing materials should be crayon and blackboard. These are followed by slate and pencil or paper and ink, preferably unruled paper at first. When either slate or lead pencils are used, care should be taken to see that they are of reasonable length so that they may be held properly. The use of an extremely short pencil causes a pinched, cramped position of the hand. When ink is used, the wells should have just enough ink in them so that pen points will not be filled. Pen wipers should be used after the first lesson, and blotters as soon as possible. In some graded schools, the use of pen and ink is introduced in the first grade, but, in general, just as satisfactory results, if not more so, with fewer difficulties, are obtained by beginning the use of these materials somewhat later.

How to Handle Materials. — All danger of accidents to pens, or from overturned ink, or the use of such material at inappropriate times may be obviated by collecting pens and ink at the close of the writing period. A light, shallow, wooden box serves nicely as a receptacle in which to collect the ink, and a pasteboard box two and a half inches in depth and any convenient length and width, according to number of pupils, serves for the pens. Rule the cover of the box into squares, three fourths of an inch to one inch in dimension, and make holes at the intersections of the lines by perforating with a sharpened lead pencil. Letter the rows, a, b, c, etc., and number the

holes in a row, 1, 2, 3, etc., and tie the cover on the box securely with small, strong cord. The pens are collected by rows, inverted, and placed in these holes. As each pupil's pen is thus known by letter and by number, pens may be passed and collected quickly without confusion.

DISCUSSION OF METHODS

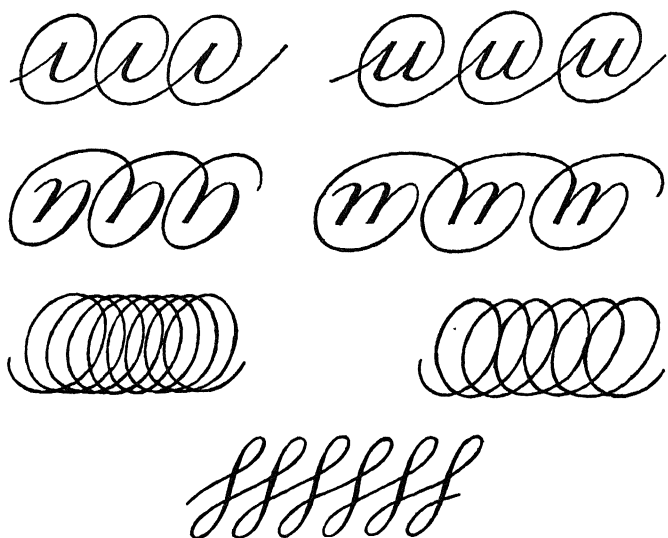
System. — It is not the intention in this chapter to discuss systems of writing further than to say that the general consensus of opinion is, that whatever system professional penmen, bookkeepers and business men may select for speed, the easiest to learn to write well and by far the easiest to read is the vertical system or, at most, a style that has only a slight slant. Some will argue that a child naturally changes his style as he advances in grade. This is no argument against the system, as he does that to some degree, regardless of the system by which he is taught. He is only individualizing his style.

Position. — Teachers can err by insisting too strongly upon one certain position for every one, as well as by being careless about the whole matter. A slightly side position usually gives better desk support for the arm than a straight front position unless desks are quite wide. The arm should not be allowed to hang off the desk, as is apt to happen when one has neared the bottom of a page, and leave all the weight upon the hand, as this hampers free movement. Often pupils act as though they had but one hand, as far as writing is concerned, and they try to hold the paper in position by pressing down with the writing hand instead of using the other hand for that purpose. This also prevents good muscular action. Having both hands on the desk is apt to insure corresponding elevation of the shoulders.

Usually the back of the pen hand should be turned upward, instead of sidewise, the ends of fourth and little fingers acting as a support, but the shape of the hand has some bearing upon the matter and an easy position for one is not always easy for another. The shape of the first finger is a very sure index as to whether or not the pen or pencil is being gripped too tightly. If the whole length of the finger presents a nicely rounded outward curve, then all is well, but if the middle joint is sharply bent and the lower half of the finger bends inward, the grip is too tense and the hand is strained. These little signs are easily remembered and observed, by the pupils as well as by the teacher, and serve as a simple but effective guide.

In general, the body should be erect, leaning slightly forward, but not bent sidewise, humped over the desk, or allowed to take any awkward, ungainly, or distorted position. The feet placed flat upon the floor will assist in assuming and maintaining this position. The head should be erect that the eyes may look squarely at the copy.

Movement. — While form, as was said before, is the main feature in lower-grade writing, yet no pains should be spared to make muscular movements as free and as easy as possible. To this end a number of movement exercises are beneficial. A few good exercises are those shown on page 317: Lines of undotted *i*'s and *u*'s combined with an upward circle; *n*'s or *m*'s with the downward circle; the regular oval; the inverted oval; and the old style *f*. These should all be large enough to require the arm movement. To secure uniformity and regularity of movement in these exercises, it is well to count for the writing, first slowly, then rapidly. For oval count one; for *i* and *f*, two each; for *u* and *n*, three each.



Analysis. — A number of years ago a very important factor in the subject of writing was the analysis of letters, that is, the naming of the principles which they contained. Now the pendulum has swung entirely to the other side and scarcely any reference is ever made to principles. No formal analysis will make a good penman, but some attention to the similarity of various letters will be of assistance in their formation, e. g., *u* consists of two *i*'s, minus the dots; *w* is *u* with a finishing line like *v*, while the first part of *v* is like the first part of *n*; *b* is *l* finished like *v*, and *h* is *l* finished like the last of *n*; *g* is *a* with a downward loop, while *j* is *i* with the downward loop; *d* is *a* with an upward extension, or, it is *c*, combined with the *t* without the cross; *d* also contains all the essential features of *a*, *c*, *i*, and *t*, except the dot and the cross; *y* is the first of *n* and the *j* minus the dot.

This sort of analysis, which might be continued much farther, cannot fail to be helpful in writing, and also causes close observation. An opportunity to cultivate this faculty can be profitably seized, wherever met.

Dividing the Writing Period. — Each writing period should be divided into two or three parts, or, if time is very short, the different sorts of exercise may be taken at different and alternating periods. One part of the period should be given to movement exercises, another to drill on letter forms, and a third to individual writing. If all are drilling on one letter form, the more common errors are easily pointed out and corrected. The number of well-written forms may be placed upon the board by the teacher and the pupils called upon to explain wherein their various forms are incorrect. The third division of the work consists of the actual writing of copies. This is individual work rather than class work. The pupil is expected to put into actual use what he has learned in the other divisions of the work, and he may progress as rapidly or as slowly as his skill may warrant. At all times one need not hesitate to impress upon the pupils' minds, that to write well is an accomplishment of which they may well be proud.

Chapter VII

DRAWING

A Means of Expression. — Although the curriculum for the rural school is quite full, and there are many demands on the teacher's time, the subject of drawing has a valid claim for a place on the program. It is simply another mode of expression, and fortunate is he who can express himself in many ways. Few things give more pleasure or are of more value than the ability to express one's self by means of a sketch. To draw well, one must observe form, and to execute form, he must train the muscles to respond accurately just as they are taught to respond in performing any other work.

Beginning Early. — When pupils have had no training in drawing till they are well advanced in the grades, they become selfconscious and feel their limitations, and consequently dislike the subject. If drawing is begun in the first grade, it is done as a matter of course the same as reading, writing and numbers; and though the first efforts are crude, yet they compare favorably with the children's efforts in other lines of work. If they are led to make attempts and are not made to believe that drawing is difficult, they will like to express themselves in this way. In truth, a moment's reflection will recall the fact that few are the little people who do not try to draw long before they enter school. Unfortunately these early efforts do not always receive the encouragement from par-

ents and teacher which they should; if, indeed, they are not wholly repressed.

If, then, drawing is so desirable a subject, the question naturally arises, what shall be drawn and how? It is not the intention in this chapter to go very fully into the "what" or the "how," but to offer some suggestions showing the possibilities of the subject and to urge its claim for a place on the program.

HOW TO BEGIN

Materials. — The materials needed for the accomplishment of much and of good work in drawing are few and inexpensive. Twenty-five sheets of drawing paper, white or manila colored as preferred, a good medium or a soft drawing pencil, and a box of good colored drawing crayons, eight colors including the six standards and brown and black are all the actual essentials. A good soft eraser is convenient but should be used sparingly, and in the lower grades only by the teacher. Erasing becomes a habit.

The colored crayons are valuable in the design work, and if handled with care are most effective in the drawing of scenes. Children delight in color, and drawings done in color appeal to them when black and white would fail to do so. The teacher should have knowledge of and taste in color if good results are to be obtained. Children should be taught to make harmonious combinations and to use color sparingly so that the results may be delicate rather than gaudy.

Point of Attack. — Teachers of drawing differ in both the point of attack and the method of attacking the subject; though, eventually, they cover about the same ground. Some emphasize line drawing, some mass draw-

ing. In general, according to the best authorities mass drawing seems preferable; because an object appears to be a solid and because the desired form is, to a great extent, a matter of development. Line drawing demands more perfect muscular control and greater perfection of form at the very first. In mass work, general form is first sought and then by analysis and comparison the imperfections are found and corrected.

But, whether lines or masses are used, sharply defined, hard lines as a rule are to be avoided and broad gray lines and smooth gray shading are to be sought. To secure this effect a slightly rough surface paper is preferable to a smooth or glazed paper. Regular drawing paper has such a surface. Again, some supervisors begin work with the type forms, circle, square, triangle, sphere, etc., while others prefer to sketch objects based upon these forms.

Use of Type Forms. — The type forms are perfect forms and are hard to reproduce and, if the type form is the object to be attained, perfection must be striven for. Also, the type form is more or less an abstraction, while objects based on these are more concrete and more in harmony with the child's life experiences; so they seem a more logical point of beginning. An apple or a turnip is much more easily reproduced than a ball; a carrot or a long radish, more easily than a cone; a log or a tree, more easily than a cylinder, — because the sides do not need to balance exactly. Some articles like vases whose opposite sides are duplicates are harder to draw because of this very fact. Consequently the unbalanced objects and those which vary from the type are most easily drawn and do not suffer greatly on account of deviation.

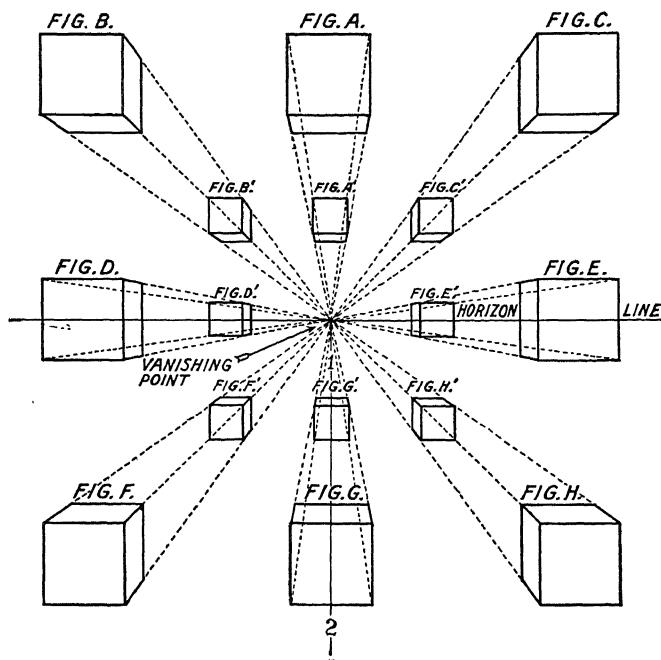
But regardless of whether the drawing shall be that of the type forms or of objects based upon them, the oppor-

tunity should not be lost for actually studying, analyzing and comparing the real type forms and developing their characteristics and the terms applying to them. A good text defining and setting forth the characteristics of the sphere, the cube, etc., should be in the hands of the teacher. With this as a guide the teacher should endeavor to lead the pupils to get clear ideas of these type forms and their relation to each other.

Helping by Criticising. — One need not hesitate to attempt the more difficult forms, if he can arouse interest and will criticise attempts carefully and without censure. Find some good point, if possible, then show where and how another point may be improved greatly, by a very slight change or addition. Then get the child to criticise his own work. He cannot improve it, except by chance, unless he can detect and describe the defects. Show to the whole school something that has been well done. A drawing does not have to be finished minutely in order to possess excellence. If the sketch shows life and character, it is good even though the one executing it has not secured exactly the form and finish desired. Both of these features may be noted in the criticism. Much of the first work might well consist of sketch work chiefly, striving for general effect, leaving perfection and minuteness of detail till a later period of the work.

PERSPECTIVE

Frequently children want to draw an object as it is, not as it appears. For instance, in making a box or a house all sides instead of the possible ones are shown. The number and faces of an object to be drawn depend wholly upon its position with respect to the observer. The following drawing illustrates this well.



AN ILLUSTRATION OF PERSPECTIVE

All figures A—H' represent the same object, an almost cubical block, in fifteen positions which it might easily occupy in respect to a stationary observer whose eye is at some point on the line 1-2, in front of Fig. G and equally distant between Figures A and G.

Fig. A is directly in front of and somewhat above the observer's eye.

Fig. G is equally distant in front of and as far below the eye as Fig. A is above it.

Fig. C and Fig. B are equally distant with A above the eye but C is as far to the right as B is to the left.

Figures F and H are as far below the eye as Fig. G or as far below as A is above and they occupy the same relative positions below the eye as B and C, respectively, occupy above it.

Figures B, C, F and H each present three sides to the observer and are equally distant from Vanishing Point.

Figures D and E are equally distant from the Vanishing Point on the left and the right, respectively, both are in front of eye and they extend equally above and below the horizon line which cuts their front faces. Therefore they are on a level with the eye and neither their tops nor their bottoms are seen and they present but two faces.

If the figure were directly in front of the eye as well as on the same level, a single face would be seen.

Stating relations and positions in another way: Figures C, E and H are all the same distance to the observer's right of the Vanishing Point. C is above eye, E on a level with it and H below it.

Figures B, D and F occupy corresponding positions, respectively, on the left of the observer.

Figures B, A and C are all equally distant above the eye and to the left, directly in front of it, and to the right of it, respectively.

Figures F, G and H occupy corresponding positions, respectively, below the eye.

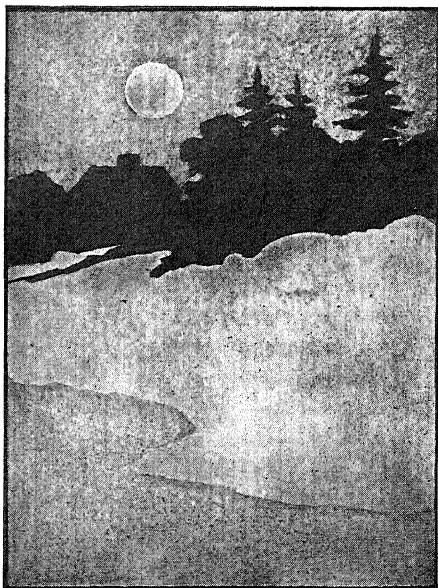
Figures A' to H' are the same figures, respectively, at a considerably greater distance from the observer, that is, much nearer the horizon line and the Vanishing Point; therefore they have seemingly decreased in size, correspondingly. The fact that the vanishing lines pass through the same corresponding points indicates that the loss of size is due to greater distance and not to any actual change, for, all parallel lines of similar figures between any two vanishing lines are equal.

SCENE DRAWING

Some Principles. — Little scenes are good drawing exercises; for, even though the child does not reproduce the copy exactly, he still has a “ picture ” and is pleased with it. Scenes involve and easily illustrate the laws of perspective drawing. Some of the important ones of these are: All lines that are vertical in the object must be made so in the drawing. Illustrate the principle by making some rough drawings, a fence, a tree, a house; by showing that the fence post that is shown by an oblique line is a leaning post, so, unless that is what one wishes to represent, he must not draw it in this way. Receding parallel lines converge and, if extended far enough, will finally meet at a point called the vanishing point. Consequently, objects at a distance are drawn much smaller than other objects of the same size in the foreground. Even a little child may comprehend this law if his attention is called to the fact that, if a man is near him, he is seen his full size; but, if the man is far down the level road, he is not seen larger than a boy, though he has not changed in size. A few simple lines will illustrate this law and the one for vertical lines also. A road, a line of trees, a fence, or a row of telegraph poles, furnish material for the lesson.

The same scenes may be made in pencil and in colors. A picture may be made in different tones of one color or of black or in different colors. Some initial practice should be given to secure and appreciate the color tones or color scale.

The scene shown in the accompanying illustration might be colored as follows: — a pale yellow, wintry sun, dark evergreen shrubbery in distance, or it might be snow covered, snowy foreground with slight yellow cast, gray-



A SCENE IN THREE TONES

ish ice on pond, yellowish gray or pale blue sky. Almost any scene may be worked out in tones of any desired one color.

Suggestive Drawings for the Different Months

SEPTEMBER: Grasses, goldenrod, sunflower, corn stalks, asters, trees, cat-tails, hunting scene.

OCTOBER: Autumn leaves, such as oak, elm, sumac, maple; thistle; nuts; fruits and vegetables; Hallowe'en ideas, such as, Jack o' lanterns, brownies, black cats, witches; Columbus pictures; Autumn scenes.

NOVEMBER: Fruits and vegetables, ears of corn, geese, turkeys, Indian and Pilgrim objects or scenes.

DECEMBER: Trees in winter aspect; cut snow crystals; draw snow man; sleds; children rolling snowball; coasting scenes; Christmas ideas, such as, trees, toys, stockings, Santa Claus, fireplace, reindeer, camels, holly bells, etc.

JANUARY: Snow scenes and objects as in December; Eskimo huts; dog teams; seal; reindeer; an Arctic scene.

FEBRUARY: Make and decorate valentines; draw objects suggestive of Colonial times, of Washington and Lincoln and of any patriotic idea.

MARCH: Birds, branches and buds, and earliest spring plant forms, tulips, iris, etc; Dutch windmill, kites, etc., suggesting winds.

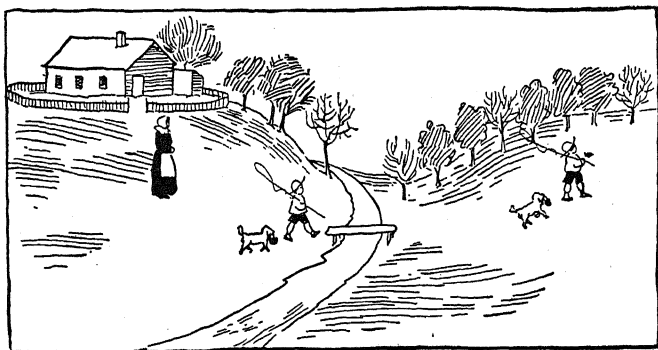
APRIL: Easter suggestions: rabbits, chickens, eggs, lilies; leaf and flower forms as they appear in nature; scenes suggesting rains and spring occupations.

MAY: Spring scenes, flowers, etc., similar to April; butterflies, birds' nests, etc.; boys with fishing poles, picnic parties, etc.; May basket decorations.

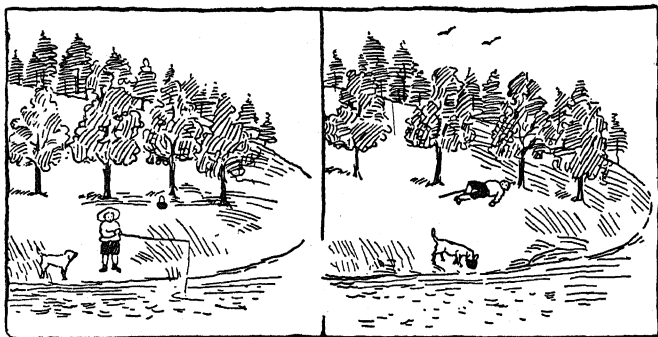
Illustrating Stories. — Children sometimes like to illustrate stories told to them, or a paragraph from a reading lesson. The following story is given as an example:

WILLIE GOES FISHING

One day Willie's mother told him that, since he had worked so well all the week, he might go fishing. She put up a basket of lunch, for she knew he would get hungry. Willie took his pole and line and a can of bait, gave the basket of lunch to Skip, his dog, to carry and set out for his favorite fishing hole. His mother watched him till he had crossed a little stream on a foot log, climbed up a steep hill, and disappeared on the other side, then



A CHILD'S DRAWING FOR THE FISHING STORY, NOS. 1-2



A CHILD'S DRAWING FOR THE FISHING STORY. NOS. 3-4

she went back to her work, hoping that Willie would have a good time and that nothing would happen to him.

After a while Willie saw two large birds flying above a tall pine tree and he sat down to watch them for a few minutes, but the next thing he knew he awoke to find himself lying upon the ground with his bait can empty beside him and Skip eating the last bite of the lunch. As it was growing late, he laughed at the joke he had played

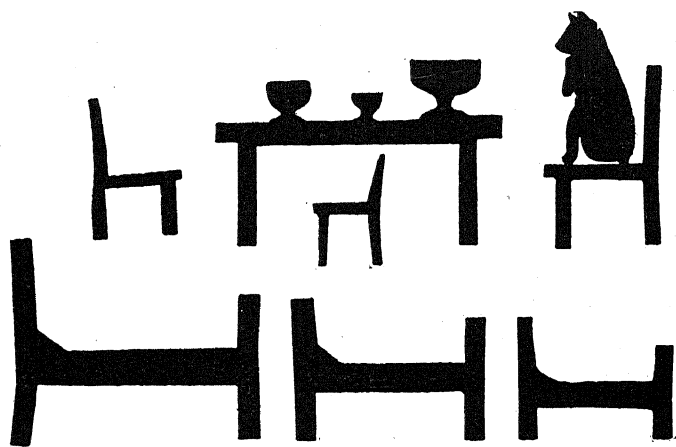
on himself and said to his dog, "Well, you might have left me the crumbs, at least. I should have done that for you. I think I do not care to go fishing, anyway, so let us go home."

PAPER - CUTTING AND DESIGN

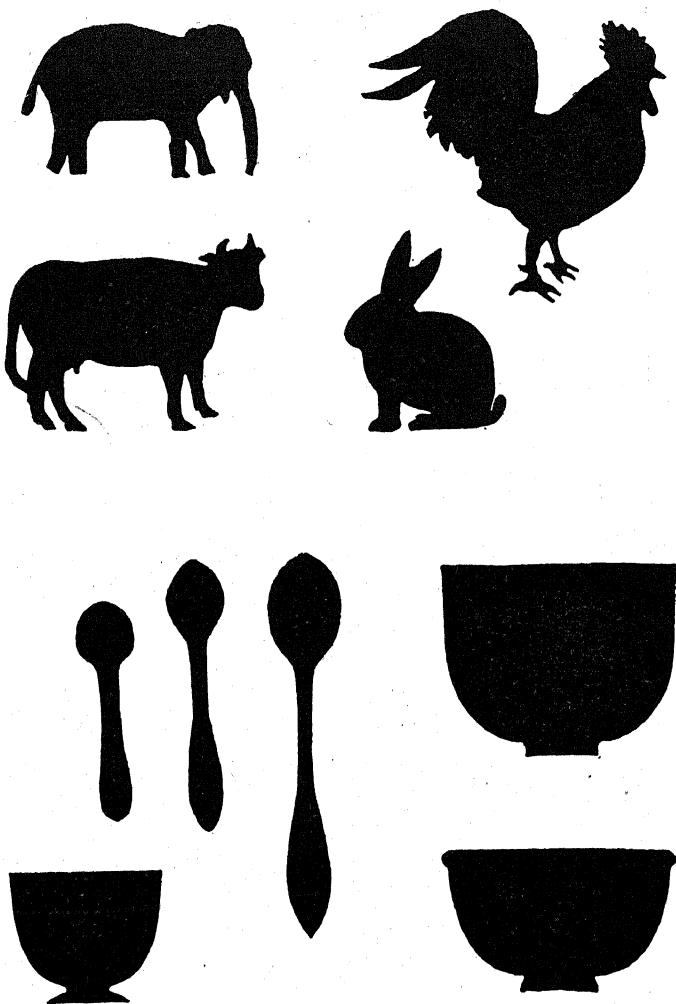
An occupation closely related to drawing is that of freehand paper-cutting. This work is one that gives the pupils pleasure as well as excellent practice in seeing form with the mind's eye and then executing that form by means of the scissors without the aid of lines. The physical eye must follow the mental outline and the muscles must be taught to work in harmony with both. Again, the equipment is simple, nothing but scissors and plain paper of any kind is absolutely essential. The scissors present the greater difficulty; for it is not always convenient to have these brought from home, but good school scissors with the round points may be had for fifteen cents or less. Fifty cents or a dollar spent for scissors would pay a high rate of interest.

Applications. — Paper-cutting may be applied in the illustration of reading lessons or stories such as, "The Three Bears," "Ulysses and the Winds," "Chicken Little," etc.; in illustrating events of particular interest as, The Circus, the study of the Pilgrims, the departure or return of the birds; in representing fruits, vegetables, autumn leaves, etc., — by using colored papers these are made more realistic, — and common household articles, such as bowls, cups, vases, hats, boots, hatchets, and so forth.

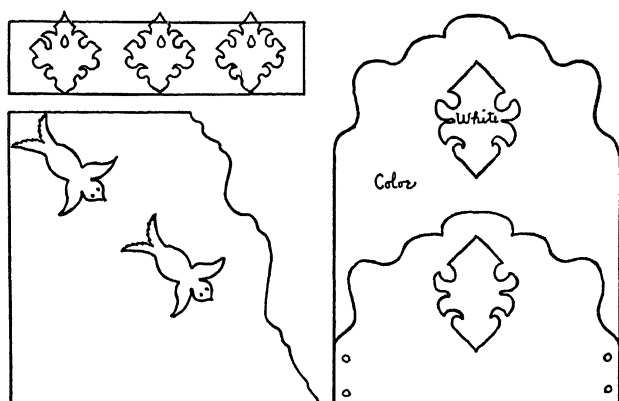
Snow crystals, cut from paper, as well as flower and bird forms may be used as decorations for home-made valentines, Christmas or Easter cards, book covers; and the crystals whole or divided into their units as decora-



ILLUSTRATIONS CUT FROM PAPER



SOME PAPER-CUTTINGS MADE BY CHILDREN



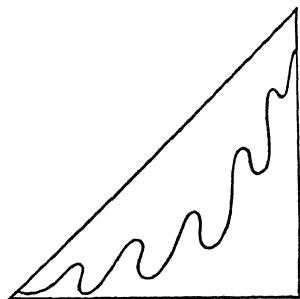
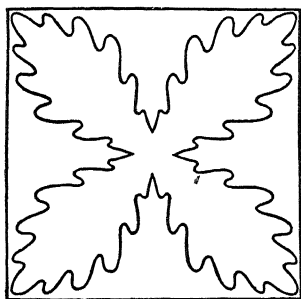
APPLICATIONS OF CUT-WORK DESIGNS

tions for cardboard construction **workboxes**, letter cases, and so forth.

Larger cut designs may be converted into posters appropriate to the various holidays, such as Hallowe'en, Thanksgiving, Arbor Day, etc.

The accompanying illustrations are suggestions both for paper-cutting and the regular drawing work as mentioned in various places in this article. A number of these are actual cuttings made by the pupils in a rural school.

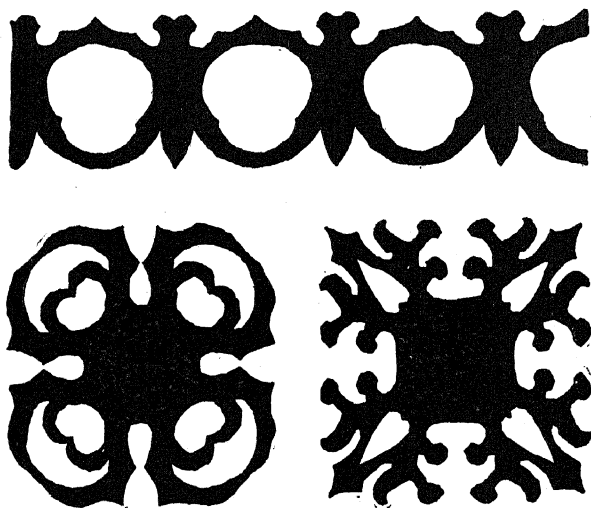
Conventional Designs.—While speaking of paper-cutting, mention may be made of forms cut from folded paper to produce a repetition of units about a center or in rows. Take a square, fold on both diameters and, without opening, fold on a diagonal from the inner folded point of square to opposite outer corner, and cut in any form desired, merely leaving connecting points between the units. Cut on curved lines. No lines are used in the actual work. This produces four units about a center.



CUTTING A DESIGN


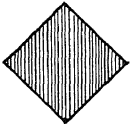

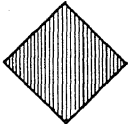

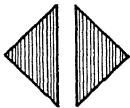

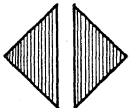




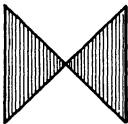
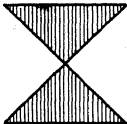
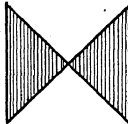
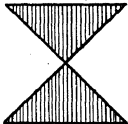




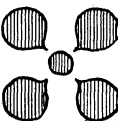
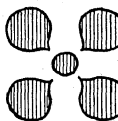
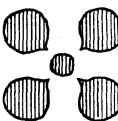
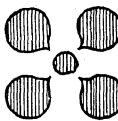
Long strips folded together into squares and then folded again on the vertical diameter or on a diagonal will give the units in rows, if a connecting portion is left uncut at the sides. This form of cutting develops the inventive faculty. In the actual business world such designs are employed in the figures of carpets, wall paper, oil cloth, woven goods, and for many such purposes. In the schoolroom applications of them may be made by using them for forming designs for book covers, portfolios, pillow tops, etc. To see that they have use gives dignity to an occupation which otherwise some might look upon as mere child's play. Mention of these uses should be made even though no application of them is attempted.

Design work calls for exact repetition and for conventional forms of either geometrical or natural objects as illustrated in the borders Nos. 1 to 6 on page 335. Little people may be allowed to make designs by laying cardboard tablets - circles, squares, oblongs, diamonds, etc., — upon sheets of paper and then tracing around them. They may then be shaded or colored, if desired. Work requiring accurate measurements is not well suited



SOME FINISHED DESIGNS

to little children, but aside from this, they may attempt almost anything the older ones do. It is all the more necessary in rural schools to choose work that can be done by the pupils all together, because the time which may be devoted to such work does not permit of much division. Some of the older ones may be given exercises in simple cardboard construction in which the patterns are drawn to given dimensions. The lower grades may do construction work, making small articles like boxes, chairs, tables, carts, cupboards, wall pockets, etc., by folding papers into small squares, folding and pasting according to the teacher's directions, using the creases made by the folding as guide lines. Pencils and measures are both unnecessary. This work is easy and a number of books containing the necessary directions are to be obtained at a cost of anywhere from twenty-five cents to one dollar.

| | | | | |
|---|---|---|---|--------------------------------------|
|  |  |  |  | Design No 1 |
|  |  |  |  | Design No 2 |
|  |  |  |  | Design No 3 |
|  |  |  |  | Design No 4 |
|  |  |  |  | Thistle No 5 |
|  |  |  |  | Corn or Melon Seeds No 6 |

SOME SUGGESTED DESIGNS FOR BORDERS

A Final Word. — Finally since this chapter is merely meant to be suggestive and in no way an exhaustive treatment of the subject, it will have accomplished its end, if it has created interest in the subject, and shown that it has a place in a complete educational scheme; that it has its utilities as well as its aesthetic side; that it may serve to add interest to other school subjects; that its value as a mental stimulus is of no small weight, demanding, as it does, close observation, keen analysis, careful synthesis, and constructive imagination; that it is so varied that it should never cease to interest; that it may be adapted to the ability of the most unskilled person or to that of him who has unusual artistic ability; and last and most important, that this work is not beyond the ability or power of the teacher who is willing to make the same effort she makes in other lines of work and who will equip herself with some one or more of the excellent series of drawing textbooks which are in the market.

Chapter VIII

MUSIC

IMPORTANCE

AT the present time when so many subjects are clamoring for attention in our school program it is well to bear in mind that the school should not merely enable the pupils to earn a livelihood but it should also prepare them to get the most from life after a livelihood has been attained. Good or bad citizenship is very largely determined by the manner in which the members of a community occupy the hours when they are not at work.

If we take into account the fact that in the rural schools the boys and girls should be taught not only reading, writing and kindred subjects but also those things which will form their diversions in the years to come, the importance of music in the school will be better appreciated.

In the vast majority of schools, teachers are content with only a limited amount of song singing or with no music at all. Class work in music is rarely attempted. This is often due to a lack of knowledge on the part of the teacher as well as to a want of confidence in the results that may be obtained. Practical experience has proven that a daily music period is perfectly possible for every school. This may be made productive of very definite results and at the same time afford an agreeable relaxation for the pupils and teacher.

EQUIPMENT

The Textbook. — The question of a textbook will be determined by conditions and the teacher's choice. A one-book course in which there is much work on the simple problems is best suited to rural school conditions. There should be an introduction of the bass clef and a glossary of the ordinary musical terms. It goes without saying that copies of the textbook should be in the hands of the pupils if possible.

Use of Blackboard. — A resourceful teacher can make good use of the blackboard. If there is room a painted staff enables the teacher to present many simple melodies. On such a staff the spacing between the lines should be not less than an inch and a quarter apart. If the blackboard space is limited, a staff liner may be used. This is a device which holds five pieces of crayon, so that a staff can be drawn with one movement of the hand, or, by holding a piece of crayon between the first and second and another between the second and third fingers a staff may be drawn with three instead of five strokes. Do not make notes by filling in "o." Take a third piece of crayon and rub this on the board until the side is worn flat. A downward stroke of this flat surface will make a square note head.

Use of the Pitch Pipe. — If no instrument is in the schoolroom, the teacher should purchase a pitch pipe. The most serviceable is one giving all the tones of the scale, commonly known as a chromatic pitch pipe. If a "C" pipe is used, the beginning tones of the common keys may be found as shown in the table on the following page.

The Non-Singing Teacher. — For the teacher *who does not sing* it is encouraging to remember that listening is

TABLE SHOWING HOW TO FIND BEGINNING TONES OF OTHER KEYS
BY MEANS OF "C" PIPE

| KEY OF | IN SCALE OF C SING | IN NEW KEY CALL IT |
|-----------|------------------------|---------------------------|
| G — # | Sol | Doo |
| D — ## | Re | Doo |
| A — ### | La | Doo |
| E — #### | Mi | Doo |
| KEY OF | SOUND C AND CALL IT | Sing to Doo in new key |
| F — b | Sol | |
| Bb — bb | Re | |
| Eb — bbb | La | |
| Ab — bbbb | Mi | |

one of the most important and difficult points to be mastered by the teacher. A teacher's ability to sing well often retards the children. She helps so much that the children cannot learn. The non-singing teacher should know the correct sounds when they are given. Rhythm is more difficult to teach than tone and that can be mastered even by one who is tone deaf. In the vast majority of cases lack of ability on the part of a teacher often means merely lack of effort and persistence. In case a teacher positively cannot sing the simplest exercises, she can find a boy or girl who has a keen recognition of the different pitches and appoint him as critic or referee. Often this honor may be passed around. Not infrequently, the class as a whole may be depended upon to note the errors that may occur. This is always true when the previous work has been thoroughly mastered. A teacher whose limitations are merely vocal should not allow this to prevent the boys and girls under her care from enjoying the privilege of music study, however

elementary this may be. A large number of rural schools possess organs and these are of even more service than a piano in the ordinary school. In dealing with monotones, the sustained tone from a particular key on the organ aids wonderfully in bringing the children's voices to the same pitch.

TEACHING IN GROUPS

In the ordinary one-room school the pupils very naturally divide into three groups, each of which can follow a distinct line of work in music: *Group One*, a group in song singing. This will ordinarily include the first three grades. *Group Two*, a group in note reading, is composed of grades four, five and six. *Group Three*, a group including the remaining grades, takes up the theory of music. With this arrangement, each group may derive benefit from hearing the recitation of the other groups.

The following plan is merely suggestive and should be shaped by the teacher to meet conditions. Set aside the first fifteen minutes after the noon recess for the music period. This will be found more satisfactory than attempting to combine instruction with the devotional exercise in the morning. A special seating is usually desirable. A good plan is to have Group One in the front seats, Group Two back of them and Group Three in the rear. If the pupils in the third group do not sing well it may be wiser to seat the groups in rows from the front to the back of the room. The recitation period of Group One may be Monday and Wednesday; Group Two, Tuesday and Thursday, and Friday may be wholly given to Group Three. Written work and study may occupy this last group for their second recitation on one of the days when group one or two is singing.

Rote Singing. — *Group One* should include the pupils of lower grades, and by means of songs and rhythm games the foundation should be laid for the note reading to be done in *Group Two*. Some of the beginners, if not all, will require individual attention. In dealing with the so-called monotonies, first learn if they can observe a difference in pitch of various tones. Next let them sing in unison single tones and simple melodies. If a child after repeated efforts will not take the pitch given, use his starting tone as a beginning and call it "doo." The principal difficulty with children who can recognize pitch but do not imitate different pitches readily is due to the fact that they have not learned to properly use the so-called head voice. Light quality of tone and the sound of "oo" are conducive to this sort of production. It is often easier for such children to sing an upper tone and then sing down the scale. "E" in the fourth space of the soprano clef is a safe starting tone.

In the selection of song material the teacher should see to it that the words are within the comprehension of the children. It is not necessary, however, that the music be extremely simple. The teacher should search through all available songs and should include songs of nature, songs that illustrate the every-day affairs of life, those that deal with special vocations as well as those suitable for all of the national holidays. All publishers of music and music books for schools issue sheet music, called "supplementary music for schools," at a very low cost. Before presenting a song the teacher should carefully study the meaning of the words; he should note the emphatic words and pauses and should see in imagination the things which the song suggests. Go over the melody very carefully in preparation. Any error in the first presentation is hard to correct. In teaching a song by rote,

that is, by imitation, sing the whole song through; then sing the first phrase and let the children sing after you; similarly the second phrase, etc. Children will learn by imitation many melodies that they might not be able to read after several years' training.

Marching songs, songs which have a strong accent and rhythm and games should be used for the development of the feeling of rhythm. Clapping in time with the accent exercises is valuable in this connection. After the children have learned a number of songs, select some of the simpler ones and teach the syllable names as an additional verse. Do this with eight or ten songs; also use scale songs of fifteen words or syllables sung to the ascending and descending melody of the scale, e. g., "See the soldiers marching gaily keeping step with fife and drum."

Good rote songs will be found in any of the following books:

"Songs of the Child World" by Jessie L. Gaynor.
Books 1 and 2.

"Song Development for Little Children" by Ripley and Hertz.

"Small Songs for Small Singers" by Neidlinger.

"The Song Primer" by Alys Bentley.

"Children's Old and New Singing Games" by Marie Hofer.

"Popular Folk Dances" by Marie Hofer.

"Art Song Cycles" by Miessner.

Sight Singing. — *Group Two* should utilize the knowledge gained in *Group One*. If music is being introduced for the first time some of the work, including the rhythm drill, that is, exercises to develop the feeling for the accent in music, and memorizing of syllables will have to be done before note reading is attempted. All the exer-

cises and songs used for sight reading should be extremely simple. In no other phase of the work is the adage, "not how much but how well," more applicable. The children in this group should learn the recognition of the different signatures but simply as a means of knowing where 1, that is the "doo" of the scale is located. To explain the whys of scale construction to this group is a waste of valuable time. A very simple rule which any child can follow is to count up one line or space from the last sharp and down two lines and a space or two spaces and a line from the last flat and this will locate 8 or 1 of the scale. Call attention to the fact that the last, that is the right-hand sharp is on "Ti" and the right-hand flat is on "Faw." In this group spend practically all the time in sight reading. When an error occurs, ask the class to sing the scale tones or an easy skip which will make the matter easier. Fix in the minds of the children the fact that the important tones are 1, 3, 5, and 8 and let them think of 4 as tending toward 3, 7 toward 8, 2 toward 1, etc. — the numbers referring of course to the syllables of the scale. When an error reveals a weakness on the part of the class in singing a particular interval or in understanding a time problem, drill then and there on this point until it is mastered.

The foremost aim in this phase of the work is the *development of power* on the part of the children. This requires real judgment on the part of the teacher. While an exercise should not be carelessly read, it is not necessary to go over every exercise until each child can do it "letter-perfect." The reason for this is that after a certain number of repetitions the singing of the tones as they occur in the particular exercise becomes mere memory work. Drill to correct errors but keep as your goal the reading of similar exercises — the development

of power. Do not give the children more than one thing at a time to master. If an exercise brings a problem that is new, either in time or tune, prepare for this by imitation. Present all things for the first time by imitation. "Sing it. Name it. Represent it," is good pedagogy in the teaching of music. Do not confuse the children by explaining things that they cannot do. The aim of all the work in Group Two is the independent note reading of simple exercises. Reserve the "whys and wherefores" for Group Three. Spend your time on the things which the children will meet most commonly. If by the time they have finished the work in this group they can read the music in the church hymnal, the teacher has done all that can be expected and has prepared them for an appreciation of the next group's work.

In teaching time or "rhythm," as it is called, make sure that the children recognize the different notes that go to make up a beat or "pulse." Then see to it that they make every pulse clear and distinct. In singing a half note in quarter measure teach them to think of it as two quarter notes tied (Doo-oo) and "pulse" or emphasize each one, by repeating the vowel with emphasis for the second one. Later when they sing two tones to a beat, as two eighths to a pulse in quarter measure, the regular accent of the beats will be best felt by singing the second tone much lighter. In the "catch note," as represented by the dotted quarter and the eighth, pulse strongly, that is sing with stress by repeating the vowel, the beat that occurs on the dot (e. g., Doo-oo-Doo).

In all phases of sight reading it is important — so important that it cannot be overemphasized — that the children should be taught to recite individually as in any other subject. This will require tact but is a sure way to obtain definite results. Preparations may be made

for this by way of individual singing in Group One and by dividing the class into threes and twos in the sight reading work. Competition always engenders interest and encourages effort. Appoint two captains. Let them "choose sides" and "spell down" in music reading. Let each side read as a whole; then assign very simple exercises for the captains to read and then the individual members in turn, alternating one side and then the other. If the opposing side detects the error, and the next singer does the exercise correctly let them choose from those who have been seated through failure if it is desired to prolong the contest. This plan has often been the means of inducing strenuous effort on the part of otherwise timid or stubborn pupils. Occasionally some additional members may be chosen from Group Three, if they are possessed of about the same degree of ability. This may form the basis of a more elaborate contest which will afford a very entertaining evening for the parents, from whom judges may be selected. This has the important advantage of demonstrating a practical value in what some consider a subject that is cultural only.

In the use of syllables, better tone quality will be obtained if the broader vowel sounds are employed as "Doo," "Sool," "Faw," "Law." The Miessner Music-Motif Cards provide a way by which the pupils could learn to read music with rapidity and intelligence.

Theory Study. — In *Group Three* the time should be largely devoted to the so-called "theory." If the pupils can sing, however, their recitation period on Friday can well be devoted to part singing and more advanced sight reading. The other day when they have music at the same time as one of the other groups they may do written work, or work in coöperation with Group Two by writing certain definitions, scales, etc., that occur during the les-

son. The ground covered in these grades will include the following entirely or in part:

An understanding of all kinds of measure; the different scales, major and minor; the "intermediate" tones — those between the regular scale tones; the commonly occurring musical terms employed to mark expression; familiarity with the bass or F clef. Advanced students in this group may be assigned the task of writing exercises for Group Two to read and, when possible, the recognition of intervals sung incorrectly may be required.

Group Three will perhaps include a wider variety of pupils than any other. Some who are entirely unable to do the sight reading may be advanced into this group from Group Two. This should be done only after this inability is clearly established. Such pupils who have come up through Group Two may be enabled by the additional knowledge to work ahead of the class in the matter of sight reading. In the upper grades the rudiments of music should be thoroughly studied and their application, whenever possible, observed in the work of the lower grades. Pupils going from rural schools with this preparation are well qualified to enter the County High School, where they will readily acquire ability in advanced sight reading as a result of their practice in Groups One and Two in note singing and sight singing and their theory study in Group Three.

If music is just being introduced, deal with Group One as suggested above; include in Group Three all above the third grade who cannot sing; the rest will constitute Group Two. Before starting this last group on sight reading, it will be necessary to do some of the preparatory singing — which should have been done already had Group One been in existence — also the memorizing of the syllables to several songs and singing of scale songs.

Tone Quality and Breathing Exercises.— In all the work in music the matter of tone quality should be thought of. At the beginning of the music period two minutes, taken for breathing and tone drill, will be time well spent. Teach the children to respond with soldier-like promptness: 1, “Stand” (heels together, hands at the sides, head erect, shoulders back and chin in); 2, “Position” (hands on the hips, fingers to the front on the lower ribs); 3, “Inhale” (the children filling the lungs till the ribs press out against the fingers); after a brief holding, 4, “Exhale slowly,” as teacher counts 1, 2, 3, 4; all the breath to be out of the body and the ribs well in on the last count. The length of time covered by the hold and the counting will of course be prolonged gradually. This may be used to advantage as an all school drill at any time in the day.

APPRECIATION OF MUSIC

A very important phase of music teaching lies in the development of intelligent listeners. The phonograph is now being employed as an educational instrument. It is a part of the equipment in nearly all city schools and the possibilities for culture and instruction which it affords has led to the purchase of machines by smaller schools. When wisely used and the records selected with discretion, such machines are of inestimable value. The children become familiar with many compositions which they would otherwise never hear; a deeper love for the various kinds of good music is instilled and discriminating attention on the part of the children is developed. Such machines are of practical assistance in marching and as an accompaniment to many games. At the present time arrangements may be made with dealers whereby ma-

chines can be purchased upon most reasonable terms. A word of caution with reference to records should be given. As it is possible to lower a child's taste for good literature by means of sensational novels, so also is it possible to cultivate a taste for music which is poor or worthless. Classical music, so-called, need not be any less attractive than the cheaper sort. Many of the great masters have composed selections which children will enjoy just as much as the popular rag-time tunes. In selecting records or music, if you are in doubt, ask some musician for the names of compositions which are "good music" and possess melodies that will really appeal to the children and the ordinary listeners. It is not safe to trust the ordinary salesmen of records, since no musical knowledge is required for such a position. *Träumerei* by Schumann; the *Intermezzo* from *Cavalleria Rusticana*; Rubinstein's *Melody in F* and scores of the airs from the operas and oratorios together with the folk songs of the various nations will always please any audience; and best of all they are melodies that wear.

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Chapter IX

PHYSICAL SCIENCE

INTEREST OF THE SUBJECT

HARDLY a subject in the curriculum offers the rural teacher more practical and useful material than does physical science. To very many high school graduates the mention of physics brings to the mind only confused notions of mathematical exercises, but little understood, the whole idea accompanied by a feeling of discomfort and antagonism — all thankfully escaped at the end of the course. Yet the child is continually surrounded with physical phenomena, which, if properly explained, may become intensely interesting, and children from the fifth to the eighth grades are usually eager to have the “whys” of their physical environment explained. In fact, it is often found that children of this age are more easily interested in physics than when they have reached the last years of the high school. Furthermore, the majority of the grade pupils leave school before reaching physics in a high school course.

Following is a list of experiments and demonstrations which can be performed with very little apparatus which may add wonderfully to the interest of the school. The list is merely suggestive. As much, or more, depends on the teacher as on the experiment, and each teacher must arrange, devise, and select those demonstrations in which he himself is interested, if he is to interest his pupils.

Two lessons are given in some detail. Children should be permitted to ask questions during the lesson. They will ask many which it will be impossible to answer, but let the teacher answer as many as possible and say frankly that he does not know the answers to the others.

LESSON I: WHY HOT AIR GOES UP THE CHIMNEY

We all know that the air is drawn into the grate of the stove and through the fire and up the chimney, but can we tell why the air goes up the chimney when it is hot? Let us stop a minute and find out what the air is made of. We usually think of air as some thin, invisible substance which occupies all space about us which is not filled with some more solid substance. But if we could see the air with a vision a great deal more acute than that made by the most powerful microscope, we should find the air made up of a great many fine particles all moving about among each other. Though these particles are so numerous and so closely crowded together, they seem to be trying to avoid one another; but they are flying so rapidly that they are continually running into each other and crowding each other out of the way. It is just as if every person in a crowded room should try to run with all his might in a direction different from that of any one else. Of course there would be a good many collisions and a good many changes in directions for each person. The difference between hot air and cold air is just this: In the hot air these particles are flying about a great deal more rapidly and striking each other much harder and more frequently than in cold air. For this reason they push each other away so that there are not so many of them in a given space as there are in cold air.

Now we are ready to see why hot air goes up the

chimney. Suppose we had a large "teeter board" and eight boys should get on it, four on one end and four on the other. If they are of the same size, the board would just balance; but suppose the boys on one end begin to push and shove each other until one or more of them fall off, what will happen? The two or three will fly up, of course, because they are lighter than the four boys on the other end. Now that is what happens to the hot air. We say that hot air is lighter than cold air. It is lighter just as two or three boys are lighter than four boys. Each air particle is just as heavy as when cold, but when they get hot, they push each other away so that not so many of them are left in the same space. Then the same thing happens to them as happens to the boys left on the light end of the "teeter board." The cold, heavy air from outside pushes in at the grate and forces the light air up to the top of the chimney, just as the four boys on one end of the "teeter board" forced the two or three boys up as high as the board would carry them.

The same thing applies to the hot air outside the stove. It acts as if it were trying to get up to the ceiling, but it is really trying to get down to the floor, only the cold air is heavier and so gets under it and pushes it up. Whenever hot air rises, the same principle holds good, namely, it is being pushed up by cold air.

LESSON II: PHYSIOLOGY

In our last lesson we talked about the particles of which air is composed. We said that they were very small and were moving about very rapidly. To-day let us talk about the difference between these particles, for they are not all alike. If we should put four bushels of shelled corn with a bushel of beans and mix them thoroughly

together, we would have something to represent the air. The beans mixed all through the corn would represent one kind of air particles called oxygen, while the corn would represent another kind called nitrogen. Although there is only one fourth as much oxygen as nitrogen, yet the oxygen is much more important to us.

Other substances besides the air are made up of very small particles. We shall learn the name of one of these and see why oxygen is so important to us. This other substance about which we wish to talk is called carbon. It is found in everything that ever grew or had life. All plants and animals contain some carbon particles. When carbon and oxygen are cold they may come against one another and move away again without seeming to make any change upon either. But if they are hot a very different result is seen, for then two particles of oxygen will seize one particle of carbon and the three cling tightly together. This makes an entirely new substance. It is a gas like oxygen or nitrogen and will mingle with them in the air. If we should mix a handful of oats with the four bushels of corn and the one bushel of beans, the oats might represent the particles of the new substance, which is called carbon-dioxide. When the carbon and oxygen fly together to form this new substance, they become much warmer than before.

Experiment: Suppose I hold this piece of paper up in the room. The paper is made of wood which, of course, was alive once, and so contains carbon. The oxygen in the air blows against this carbon but does not affect it, because they are both cool. But suppose I hold the flame of a match against the paper. This will heat the oxygen in the air where it touches the paper and at once the carbon in the paper and the oxygen in the air begin to fly together to form carbon-dioxide, and at the same

time they get very warm. We say that the paper is burning. Now, suppose I put this piece of burning paper into a wide-mouthed bottle and close the mouth. The paper soon begins to burn with a low blue flame and then goes out altogether. If I put a second burning piece into the bottle, it goes out the instant it gets into the bottle. The explanation is just this: The flame was caused by the oxygen of the air in the bottle uniting with the carbon in the paper. When the oxygen was nearly gone, the flame was low and blue, and when it was quite exhausted, the flame went out altogether.

Our breathing of air is in many ways like the burning of this paper. We eat some part of a plant or animal as food and this contains carbon. The blood carries the carbon to all parts of the body, — let us suppose to a muscle in the arm. Then we breathe air into the lungs, the oxygen from the air soaks through the lung walls and the blood carries it all over the body, — part of it to the muscle in the arm. Then suppose I want to move my arm, what happens? A message starts from my brain and travels along a nerve to the muscle in the arm and, when it reaches the carbon and oxygen in the arm, it has the same effect that the flame from the match had on the paper. It causes the carbon and oxygen to fly together and form carbon-dioxide, this causes heat just as in the burning paper. In this way the body may be warmer than the surrounding air. But more than creating heat, when the carbon and the oxygen unite, they cause the muscles to move and that moves the arm. This is an explanation of why running causes one to breathe more rapidly. A great deal of motion like running requires the union of a great deal of carbon and oxygen and so we have to breathe rapidly in order to supply the oxygen.

Let us return to the burning paper in the bottle. When the oxygen in the bottle was used up, the flame burned low and went out. Imagine a bottle large enough to hold a person. What would happen, if a person instead of paper were put into the bottle? When the oxygen supply ran low, there would be no more of it to unite with the carbon and the fires of the body would burn lower and lower and, if the oxygen were entirely cut off, they would finally go out. That does not very often happen, but how many people sleep in rooms with the windows closed or open a very little way, so that the fires of the body must burn low. Many people think that fresh air means cold air, but we can see from this that fresh air means air containing plenty of oxygen whether it is warm or cold.

LESSON III: AIR PRESSURE

Another lesson may be given on the weight and pressure of the air. Every fifteen cubic feet of air weighs about a pound. One of the simplest experiments to demonstrate air pressure is to place the tongue against the roof of the mouth and try to draw it down without letting air get above it. It is air pressing against it which seems to hold the tongue against the roof of the mouth.

Atmospheric pressure may also be shown by filling a tumbler level full of water and pressing over the top a piece of cardboard. If, while holding the cardboard firmly against the glass, the tumbler be inverted, the cardboard may not fall for several minutes, — till it is soaked through. The air pressure holds it up. Another good illustration may be had by soaking a piece of leather to which a string has been attached near the center.

Press the leather against a smooth rock or a piece of thick glass and observe how it may be lifted by means of the string. It is not the string which pulls the rock up, but the air under pushing it up.

SUBJECTS FOR OTHER LESSONS

Following is a suggestive list of subjects which may be treated as in the lessons above. The teacher should remember that he is under no obligation to stay strictly within the realm of physics. It is that which will be of help to children, not the subjects of a curriculum, which are to be taught, and whether it is physics, chemistry, biology, geography, or what not makes little final difference. Teach the child the things he wishes and ought to know about his physical surroundings.

I. *Expansion Due to Heat.*

1. Thermometers, construction, use; temperature of a schoolroom; temperature of boiling water; temperature at which water freezes; things which affect temperature, — latitude, altitude, evaporation, etc.

2. Things from which thermometers may be made — mercury, spirits, water, steel.

3. Expansion of iron — wagon tires, railroad irons, boiler rivets.

II. *Expansion Due to Cooling.*

Floating ice; bursting water pipes; the burst water bucket; a stick in the rain barrel.

III. *Making of Charcoal and Coke.*

The kiln; uses in stoves; furnaces, etc.

IV. *The Lime Kiln.*

Lime as shells of animals; limestone; the quarry; solubility in water; hard water; lime in soils.

V. *Cement Industries.*

The limestone; the shale; the mixing; the burning; the grinding; the uses — sidewalks, water tanks, fence posts, blocks for foundations, building houses.

VI. *Water Wheels.*

Kinds — Overshot, undershot, breast wheel, turbine; uses — for mills, factories, electrical machinery.

VII. *Windmills.*

Construction; kinds; why it moves; uses — pumping water, grinding feed, etc.

VIII. *Physical Phenomena.*

1. Study clouds, rain, hail, dew, frost, snow, evaporation, condensation.

2. Keep daily records of thermometer; study daily forecasts of United States weather bureau; discuss value to farmers and seamen.

3. Study about lightning, thunder, Franklin and his kite, lightning rods made out of fence wire well grounded and sharpened to fine points.

IX. *Water Supply.*

In country, in cities; wells, their location; drinking water for school; cisterns; keeping water pure by aeration; springs — cause; diseases spread by impure water.

X. *The Sun.*

1. Compare with earth, as to size, shape, heat; influence of each on the other.

2. The source of heat and light. *a.* Heat, wave motion, conduction, convection; *b.* Light, wave motion, speed, absorption, reflection, mirrors, lenses, prisms.

3. Effect of sun rays on man, earth, plants, water; the perpendicular rays; the slanting rays.

XI. *Air Pressure and Expansion.*

Pumps, water and bicycle; bicycle and automobile tires; air brakes on cars.

XII. *Principle of Still.*

In making alcohol, gasoline, coal oil; in making perfumery (by distilling alcohol on flower petals).

XIII. *Crystallization of Substances.*

Illustrations: alum solution and a string, rock candy, snowflakes.

XIV. *Oxidization of Iron.*

Uses of tin plate: galvanized iron, wire, tanks, etc.

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The following is offered as an illustration of the way in which stories may be used to teach the facts about physical phenomena.

THE FAIRY CHILDREN OF THE OCEAN

One hot summer's afternoon, away, way out in the ocean Old Mother Ocean was washing, "swish-a-swashy, swish-a-swashy," washing the shores of her islands. Her children were out playing and she said to them, "Don't go far away, I am too busy to follow after you." But it was so very hot that it fairly made them hop up and down, so one of the older ones said, "Let's go up a little ways in our tiny balloons." So off they started, not two or three, but millions of them. They did not expect to go so far, but up and up they went, away up into the sky, and when they were started, they could not stop until they had reached the blue sky, ever and ever so high. Soon they began to be very cold, and the wind carried them off over the land. They were far away from home and some of the little fellows began to cry, their feet were so cold. Now, what do you think happened? Some of the older ones took the little fellows into their balloons and they soon started down. Their balloons were so heavy they could not sail any more so down they came, head over heels, helter-skelter, topsy-turvy, every which way; Johnny, standing on the porch, was looking up into the sky, and as one of these big balloons hit him in the eye, he said, "Oh, what a big — rain drop!"

Now they began to come down, just whole troops of them. Some ran down the roof through the gutter into the cistern. Mary, the maid, came and pumped up a great many of them into the teakettle and set them on the hot stove. My, but it was hot! Hotter than it had been at home. They began to cry, oh, so mournfully. Did you ever hear them?

Some of them ran into the ground where it was very dark. They kept going down, down, until they met others, and they ran along together until they came to a place where they could see out. It was a well. Now what do you suppose happened? Well, I'll tell you. Whole barrels of them were pumped up into the water tank at the depot, and the big engine came steaming up Sh — sh — ch — ch — and stopped right at the tank. The fireman went up over the coal in the tender, took hold of the chain, pulled down the spout, and in they went. Then the engineer let them into the boiler where it was steaming hot. They did not know where they were, but they knew it was hot — the hottest place they'd ever been in, and they began to try to get out. They began to crowd and push in all directions. Once the engineer pulled a cord; this opened a little door; those near it gave a shriek, and out they were. Then he pulled a big lever and let many of them into a big box; now they began to push on the piston which turns the big wheels. Push, push, push, the wheels began to turn, the train began to move and out they came, going high up into the air. Some were so happy they began to play ring-a-round-a-rosey. Perhaps you have seen them playing this on a winter morning.

Some of them that came down from the sky were sulky, and stayed around on the grass and weeds all night. By the next morning they were in a good humor and thought they would play a trick on the little boys and girls who get up early; so they made some pretty little beads which shone like diamonds when the sun came up. They left them on the grass and weeds everywhere, and when Johnny went out to get some of them, he only got his feet and hands wet; for when he tried to pick them up, they stopped shining and there were no diamond beads at all. The next night some of them thought that they would do

a more wonderful thing than make diamond beads; so they painted pictures on the windows, pictures of houses, trees and birds. John and Mary thought that Jack Frost did this, but it was the Fairy Children of the Ocean.

The wind blew some of these fairies away, off over the land and up the side of a mountain. It got so very cold that they went to sleep and looked just as if they were dead. There they lay all winter, as white as they could be. But when the spring came with his warm sun, he said to the little Fairy Children, "Wake up now, it is time for you to go home." So one little fellow opened his eyes and then another and another, and every one of them began to scamper down the mountain side, running to the rivulet, then to the brook, — to the creek, then down the big river back home again to the ocean; and there was Old Mother Ocean still washing, "swish-a-swashy, swish-a-swashy," washing the shores of her islands.

Chapter X

GEOGRAPHY

Interest and Scope of Subject. — Of all the studies in the whole program, there is none which can be made more interesting than geography. In order to do this, it is necessary to make it a study of real things, and not merely the gleaning of facts from a textbook. The teacher must realize that the study of geography should not be the learning of names of places and their location on a map, but rather a study of the earth's surface with the life, both of plants and animals found thereon. This apparently modest scope of the nature of the subject, is nevertheless quite comprehensive, embracing a great field for study and information. In studying the earth's surface, we not only consider the land with its mountains, hills, valleys, plains, etc., and the water with its seas, gulfs, bays, lakes, rivers, etc., but also climate, winds, ocean currents, tides, waves, temperature, products, and, last of all, man and his occupations and relations to other created things. With this vast field for exploration and study, surely there are few classes but can be interested in some of its features, for material for this work is at the very door of the rural school.

SUGGESTIONS FOR ORAL OR PRIMARY GEOGRAPHY

1. Begin at home and study those things with which the pupils are somewhat acquainted.

2. Teach color, distance, direction, distance and direction of homes from the schoolhouse.

3. Teach the seasons, the months of the year, the days of the week.

4. Study about rain, frost, snow, hail, and some of their effects on plants and animals.

5. Study about domestic animals, their names, food, uses. The following outline for the study of hogs will illustrate how a very common thing may suffice for several lessons of interesting study and become finally the basis of a good composition.

HOGS

Breeds:

Color and characteristics of each breed.

What fed?

When and where sold?

Where shipped?

By whom bought? Market price?

Where is meat sold?

What do packers do with:

Hams, shoulders, head, ears, tails, ribs, backbones, feet, fat, intestines, sides, etc.?

This work may be carried as far as the teacher and the class are able to go and time will permit. Care should be taken to suit the work to the ability of the pupils.

6. Have pupils tell all they know about the wild animals of the locality, the wolf, the coyote, the rabbit, the gopher, the prairie dog, etc.

7. Study the plants of the locality, wheat, corn, oats, alfalfa, etc. This study of plants may extend to the finished product; as, Wheat, — preparing of the ground, selecting of the seed, sowing, cultivating, harvesting, stacking, threshing, marketing, grinding, breadmaking. Make similar outlines for corn and other grains.

8. "Aunt Martha's Corner Cupboard," by Mary and Elizabeth Kirby, will furnish information for lessons about things in the cupboard; tea, coffee, rice, sugar, and so forth.

9. The use of simple outline maps will add interest to much of the study about products.

MAP STUDY

1. Draw an outline map of the school ground, locating schoolhouse, well, coal house, hitching posts, etc.

2. Enlarge the above map so as to include the section on which the schoolhouse stands. Draw section lines double, other lines single. Locate the farms and homes on this section and any other things of interest.

3. Fill into the above map any streams, ravines, or "draws" that may be in the section. Find in which direction the water flows from this section. Encourage the pupils to find out these things from their own observation.

4. The map may be enlarged so as to include the district. Learn what the people produce: grains, cattle, horses, sheep, hogs, fowl, etc. Each one of these products may become the subject for one or more language lessons.

Product Maps. — If on this map are pasted the pictures of the animals raised on each farm and the grain and grasses grown in each field, it will add much interest to the work and prepare the way for a more extended study along the same line. Following the suggestions given above, maps may be made of the county, state, and country. Wherever possible, use the actual products for pasting on these maps, e. g. corn, wheat, cotton, rice, coffee, tea, coal, lead, salt, etc.

THE TEXT REINFORCED

Concrete Illustrations.—The first lessons of most primary geographies contain necessary geographical ideas which can be taught from observation better than from the exclusive use of the textbook. Teachers should learn a lesson from the experience of an eminent educator when he went out with his class at recess and studied geography while they waded in the marsh. There are miniature capes, bays, islands, and peninsulas to be found in almost every marsh or creek; and, if the teacher can get a class to see these in their real forms, he will be giving to them first-hand information. This teacher in commenting on his experience with his geography class says, "For the first time the real difference between studying about things through the medium of a book, and studying things themselves without the medium of a book, was revealed to me."

Conversation and objective illustration should always accompany the use of the textbook. Air in motion, rain, day and night, and the seasons are all objects of experience, yet they need to be re-observed and the facts about them need to be stated before the knowledge is secure. Connect the real things with the story of the book, and make use of the children's activity in examining, reproducing, drawing, and describing. Encourage them to bring to the school specimens of rocks, fossils, Indian relics, shells, samples of different kinds of wood, in fact, almost anything which enforces and illustrates the lesson of the book. Pictures are a never-ending source of delight and they are found in abundance in every good text on geography. The teacher should make good use of those found in the book and reinforce them by bringing to the class, and having the pupils bring others, illustra-

ting places of note and interest. These pictures can be gotten from books, magazines, postcards, railroad folders, and advertising pamphlets.

Imaginary Journeys. — In the study of Niagara Falls, the Grand Cañon of the Colorado, Yellowstone Park, and other places of note, very interesting lessons may be gotten from the advertising pamphlets put out by the railroad companies. These can be had for the asking and may serve as a basis for an imaginary trip through Southern California, a journey through the Rockies, etc. There are nearly always places of interest in one's own county or state which may be illustrated and made more real by the use of postcards. In the imaginary journey lesson, a wall map showing the route traveled over would be good to have. One can manage this by making a progressive map on a large sheet of coarse paper, or on the blackboard, if there is room. Keep up the conversational plan all the way through, for the teacher cannot know where the children are in their thought unless they talk. Drawing is the best expression of form and the ability to make outline maps should be cultivated; maps of the small and rather simple form are better than the extended, complex maps of irregular shaped states.

ADVANCED GEOGRAPHY

In studying the grand divisions some regular order should be observed. The following outline will answer very well, and it will be found especially helpful in reviews.

1. Location on the globe. (This presupposes a study of the globe and the fixing of the poles and equator.)
2. Relation to other continents and to the ocean.
3. Extent, size, shape.

4. Details of contour.
5. Large surface features, e. g. mountains, plains, valleys, etc.
6. Climate.
7. Drainage, e. g. rivers, lakes, and inland seas.
8. Forests and prairies.
9. Suitability for the occupation of man.
10. Number and kinds of people. Their occupations, modes of living, wealth, homes, inventions, institutions, exports and imports, domestic animals, factories, etc.

This outline may be modified to suit a country, a section, or a state.

Geography and History. — Geography and history should go hand in hand. The one seems to reinforce the other. The knowing a bit of the history of a city, state, or country, helps to fix and hold its location in mind. "Stories of India" read while studying southern Asia, will help to impress the geography of this country and make it more real. There are many such books that will prove excellent aids in this work and make it one of the most interesting and profitable studies offered in the whole school course.

INDEX

A

Abstraction, 295.
 Accession book for library, 132, 133.
 Addition, how teach by use of splints, 300; of fractions, how teach, 301; a form for analysis of, 306.
 Adenoids, 33.
 Advanced studies, teacher's knowledge of, 47.
 Agriculture, books on, 138; in Rural Schools, Chapter XVI, 169; difficulties in teaching, 169; material suited for rural schools, 169; department of, 170; outline for rural school, 171; a lesson plan, 173.
 Air, pure, need of revival for, 37; impure, effects of, 38; pressure, 354.
 ALDERMAN, *Ex-Supt.* L. R., 217.
 Alternation, 77.
 Amusements and occupations, books on, 138.
 Analysis, 105; in writing, 317.
 Appearance, of teacher, 54; physical, 58.
 Application for school, by letter, 53; in person, 54.
 Appreciation of Music, 347.
 Arbor Day, 8.
 ARNOLD, *Dr.*, of Rugby, 191.
Art Song Cycles, 342.

Assignment of lesson, 90.
 Assignments, and requirements, definiteness in, as aid to government, 145.
 Atmosphere, pressure of, 354.
 Attention, holding, 82; securing, 82; a means of inciting interest, 82.

B

BEACH, FRANK A., 348.
 Beads, wooden for busy work, 284.
 Bible stories in list of books, 135.
 BISHOP, *Ex-Supt.* E. C., 178.
 Blackboards, 35; use of in music, 338.
 Boarding place, 58.
 Book, danger of using too soon, 262.
 Books, agricultural, list of, 138; reference, 135.
 BOON, *Mr.*, on centralizing or consolidation in Hist. of Ed., 226.
 BOTT, E. C., what he accomplished in Louisiana, 209-214.
 Breathing exercises in music, 347.
 BROWNLEE, *Miss*, on personality, 61; on teaching morals, 163.
 Bulletins, agricultural, 170.
 Business, knowledge of, 52.

Busy work, what and how,
Chapter IV, 282; object of,
282; how make material for,
285; for older pupils, 291.

C

Call for upright men, 159.
Cannery, 12.
Canning company, Cedron
school, 212.
Canning outfit, 177.
Carbon, 352.
Carbon-dioxide, 352.
Cards, use of, in reading, 260.
CARY, Supt. C. P., on heating
and ventilation, 17.
Character, end of discipline,
148.
Charles II, profligate times of,
115.
Child Life, a first reader, 128.
Children's Hour, 205.
*Children's Old and New Sing-
ing Games*, 342.
City schools, comparison of
rural schools with, 2; what
has been accomplished by, 2.
Classes, reduction of number
of, 76; movement of, 88;
signals for, 88.
Classification report, methods
of procedure without, 68.
Classifying pupils aright, 193.
Closets, sanitary, 32.
Clubs, 178; in Missouri, 179;
tomato growing, 211; corn
growing, 212; pig raising,
212.
Color work, 292.
Commercial forms and prac-
tices, 307.
Committee of Twelve, report of,
225.

Common branches, knowledge
of, 47.
Comparing quantities by
measuring in teaching num-
bers, 297.
Concentration, 109.
Confidence in pupils, 151.
Connecticut, consolidation in,
233.
Consolidated school, Cedron,
209.
Consolidation, Chapter XIX,
222; changed conditions
which have led to, 222; a
centralizing tendency, 226;
economy of, 226; social
value of, 226; objections
and answers, 227; reports
from several states concern-
ing, 229; in Indiana, 230; in
Ohio, 230-231; in Connecti-
cut, 233; in New Jersey, 233;
modified form of, in Iowa,
233; in Minnesota, 235.
Consumption, cause of, 28;
how disseminated, 28.
Contests, 178; prizes for, in
Missouri, 180; cooking, in
Missouri, 180-182; instruc-
tion for, 181.
Contract, teacher's, impor-
tance of, 52.
Conventional designs, 332.
Coöperation, pupil's, in man-
agement of school, 166;
teachers, in superintend-
ent's plans, 196.
Copies, making for writing,
313.
Copy, use of, 312.
Corn, how to study, 173.
Cornell, model schoolhouse on
campus of, 20.
Corporal punishment as
viewed by the courts, 149.

Correct habits in language, 266.
 Country, viewpoint of, 182.
 County examination, preparing for, 77.
 Cromwell, Oliver, hymn-singing times of, 115.
 Cut-up maps for seat work, 294.

D

Daily program, Chapter VIII, 71.
 Deduction, 99.
 Designs, elementary, 289.
 Development, stages of child's, 112; of body, 113; of mind, 113.
 DICKSON, *Prof.* VIRGIL E., 216.
 Dictation exercises, 280.
 Discipline, continuous, 148; end of, 148.
 Disease, precautions against, 29.
 Diseases, contagious, preventing spread of, 29; of eye, 29.
 District unit, 223; evils of, 224-225.
 Division, how teach, by use of splints, 300; forms for analysis of, 306.
 Domestic science contests, in Nebraska, 178; in Missouri, 179.
 Dominos, use of in busy work, 288.
 Dramatization, place for in modern house, 22.
 Drawing, Chapter VII, 319; to scale as seat work, 293; a means of expression, 319; beginning early, 319; how begin, 320; materials for, 320; line, 321; mass, 321; of

type forms, 321; of scenes, 325; for different months, 326; conventional designs in, 332.
 Drinking water, 31.
 Dust, removal of, 30.
 Duties of teacher, Chapter XVII, 184; to district, 184; to pupils, 193; to county superintendent, 196; to neighborhood, 198; to self, 199.

E

Economy in modern house, 15.
 Electric lights in schoolhouses, 25.
 Emporia plan of modern schoolhouse, 21-23.
 Equipment, of house, 26; physical, of teacher, 45; mental, of teacher, 47.
 Ethics, school, Chapter XV, 159; need of teaching, 159; unsuccessful attempts at teaching, 160; methods of, 160; formal plan desirable in, 161; Kansas Public School course in, 165.
 Examples, practical, for country schools, 307.
 Experiment, burning paper, 352.
 Expressing thought in reading, 258.
 Eyes, diseases of, 29; defective, 34.
 Eyesight, testing of, 34.

F

FAIRCHILD, *Supt.* E. T., on ethical teaching, 167; on consolidation, 229.

Fairy Children of the Ocean, 357.
 Fairy tales, list of, 137.
Farm Life Readers, 129.
 Fathers' Day, 205.
 Fatigue, waves of, 74.
 Figures, teaching skill in manipulation of, 298.
 First day, Chapter VII, 63; preparation for, 63; methods of procedure on, 65.
 Flies, breeding places of, 32.
 Form work, 292.
 Forms for number work, 303.
 Fractions, teaching of, 301.
 Freedom, love of, 114.
 Fundamentals, formal work in, 300.
 Furnaces, for rural schools, 18.

G

Games and Plays, 123.
 Garden, winter, 177.
 Gardens, school, 175.
 Geography, Chapter X, 360; books of, 139; interest and scope of subject, 360; oral, 360; concrete illustrations, 363; text reinforced, 363; advanced, 364; and history, 365.
 Germ theory of disease, 28.
 German horse, 119.
 Giant's Stride, 122.
 GILHAMS, Supt. H. S., on consolidation, 229.
 GLADSTONE, WILLIAM E., 57.
 Goal, of the recitation, 99; of instruction, 100.
 Government, school, Chapter XIV, 143.
 GRAHAM, A. B., on consolidation, 231.
 Grammar, elementary as language work, 269.

Grounds, size of, 6; plans of, 7; improving in Iowa school, 214.
 Grouping objects, in number work, 298.
 Growth, intellectual, 194; moral, 195.

H

HARRIS, WM. T., on consolidation, 233.
 Hays' plan of modern schoolhouse, 20.
 Health, importance of, 45.
 Hearing, testing of, 34.
 Heating of schoolhouse, 17.
 Heating and ventilating systems, 40.
 Help, giving judicious, 194.
 Heroes, influence of, 167.
 History and biography, books of, 140.
 HOELCEL, Mrs. EMILY K., what she accomplished in Kansas, 203-209.
 Home economics contest, 182.
 Home work, credit for, 217.
 Honor, placing pupils on, 150.
 Hookworm, 33.
 Horizontal bar, 120.
 Hot air, lesson on, in chapter on Physical Science, 350.
 Houses, Better, 13; hygienic considerations in, 16; heating of, 17; ventilating of, 17; plans of, 21-26.
 HUFTALEN, Mrs., what she accomplished in Page County, Iowa, 214.
 HUTCHINSON, Dr. Woods, on play, 112.
 Hygiene and sanitation, school, Chapter IV, 28.

I

- Ideals, opportunity to inspire pupils to high, 201.
- Imitation, a factor in work of beginners, 103.
- Inattention, 83.
- Incentives, use of, 154; good, characteristics of, 154; liable to abuse, 155; of last resort, 155; best, 156.
- Induction, 98.
- Industrial center, school as, 12.
- Industrial credits for home work given by A. I. O'Reilly, 218.
- Influence, teacher's extension of, 202.
- Inhibition, two methods of, 152.
- Instruction for boys in contests, 181.
- Intellectual growth, judicious direction of pupils', 194-195.
- Interest, arousing pupils' in recitation, 82.
- Iowa, improvement of playgrounds in, 215; modified form of consolidation in, 233.

J

- Janitor work, pupils paid for doing, 205.
- Jean Mitchell's School*, 202.
- Journeys, imaginary in geography, 364.
- Judging, 105.

K

- Kansas, what has been accomplished in rural schools of, 203.

- Keeping everyone busy, 145.
- KENT, *Prof. H. L.*, on work in agriculture for rural schools, 171.
- KERN, O. J., on Arbor day, 8.
- KERR, WILLIS H., on how to organize a library, 132.
- KING, HENRY CHURCHILL, on psychology of motor activities, 152.
- KIRK, *President J. R.*, 24.
- Kirksville plan of schoolhouse, 24.
- Knowledge, pupil's, supplementing of, 85.

L

- Language Work, Chapter III, 266.
- Language, correct habits of, 266; importance of study of, 266; suggestions as to procedure in teaching, 266; incidental study of, 268; how make rules for, 270; observational work in, 272; proper, 272; use of pictures, 274.
- LEAF, *Miss G. M.*, list of books for library prepared by, 135.
- Learning words, 255.
- Legends, list of, 137.
- Lesson, studying three times, 108.
- Lessons, when to assign, 74; well studied as an aid in government, 144; subjects for physical science, 355.
- Letter writing, 276.
- Librarian, 132.
- Libraries, traveling, 126.
- Library, its uses, Chapter XIII, 125; a working, 127,

135; room for, 22; importance of, 125; how to start, 126; tax, 126; what to buy for, 127; how to use, 130; preparing a place for, 130; plan of organization, 132.
 Lighting of schoolroom, 18, 34.
 Literature, books of for library, 139; teaching appreciation of good, 264.
 Location of house, 5.
 LONGAN, *Ex-Supt.* G. B., his system of number teaching, 297.

M

Maintaining good name of school, 186.
 MANN, HORACE, regarding district unit, 223.
 Map study, 362.
 Materials, for busy work, how to care for, 290; for writing, 312-314; for drawing, 320.
 Methods, object, topic, lecture, question, 94-96; Socratic, 97; word, 250.
 Minnesota, modified form of consolidation in, 235.
 Missouri, agricultural contests in, 179.
 Moisture, need of in air of schoolroom, 43.
 Moral teachers, 159.
 Mothers' Day, 205.
 Motives in study, 110.
 Motor activities, psychology of, 151.
 Movement in writing, 316.
 Multiplication, form for analysis of, 306.
 Music, Chapter VIII, 337; importance of, 337; equipment for, 338; textbook, 338; use of blackboard in

teaching, 338; use of pitch-pipe in teaching, 338; teaching in groups, 340; reading at sight, 344; study of theory, 345; appreciation of, 347.
 Myths, list of, 137.

N

Nature books, list of, 137.
 Nature study, in city and country, 4; and agriculture, 170.
 Negation, 152.
 Nerves, teacher's need of strong, 46.
 New Jersey, consolidation in, 233.
 Noon lunch, in Washington, 215.
 Norton County schoolhouse, 19.
 Number blocks, 288.
 Number idea, 295; development of, 296.
 Number work, material for, 284; as busy work, 284-289.
 Numbers, Chapter V, 295; reading and writing, 298.

O

OAKERSON, *Supt.* W. M., on agricultural contests in Missouri, 179.
 Observational work in language, 272.
 Ohio, consolidation in, 231.
 Opening exercises, 66.
 Opportunities, lesser, 200; great, 201.
 Opportunity, for expression, value of in ethics, 163; of a rural teacher, Chapter XVIII, 200.

Oral lesson in geography, 360.
Order and period, how teach difference, 299.
Order of room, 88.
Oregon, credit for home work, in schools of, 217.
Outbuildings, screening of, 8.
Oxygen, experiment to teach facts concerning, 352.

P

- Paper-cutting, application of, 329; conventional designs for, 332.
Paraphrasing in language work, 280.
Parents' Day, 205.
PARKE, *Prof. L. A.*, on corporal punishment, 149.
Peg boards, directions for making, 285.
Pencils, precautions in regard to, 30.
Personality, what it is, 56; development of, 58; physical element, 58; mental element, 60; moral element, 61; how to improve and maintain, 62; of the teacher, as a factor in school government, 146.
Perspective, teaching in drawing, 322.
Phonics, teaching of, 256.
Physical science, Chapter IX, 349.
Physical vigor, maintenance of, 58.
Physical well being, giving pupils suggestions as to, 195.
Physiology, a lesson in, 351.
Pictures in language work, 274.
Plans for day, necessary as aid in school government, 144.
Play, spirit of, lost in country, 3; and playgrounds, Chapter XII, 112; function of, 112; school should provide for, 114.
Playground apparatus, 119; for rural school, 123; in Iowa school, 215.
Playground movement, 3.
Playgrounds, 112.
Playroom in schoolhouse basement, 25.
Plays and games, making use of, in government, 146.
Plurals, how to make rules for, 270.
Popular Folk Dances, 342.
Position, of teacher, 89; of pupils in writing, 315.
Practice teaching, 49.
Preparing for next lesson, 86.
Prizes, 155.
Product map, 362.
Professional training, teacher's need of, 48.
Program, for first day, 68; study, 72; importance of study, 73.
Property, school, duty of teachers to protect, 184.
Property mark for library, 133.
Punishment, infliction of, 147; as method of inhibition, 153.
Pupils, correcting mistakes of, 85; studying, 86; placing on honor, 150; encouraging to do talking in teaching ethics, 164; classifying of, 193.

Q

- Qualifications, the teacher, his, Chapter V, 45.
 Questions, pupils to ask, as device of recitation, 93; logical, 96; elliptical, 97.

R

- Readers, supplementary, 263.
 Reading, primary, Chapters I and II, 245, 254; importance of, 245; kinds of, 246; oral, 246; silent, 246; what constitutes good, 247; aim of all methods of, 248; methods of teaching, 248; alphabetic method, 249; the best method, 249; word method, 250; sentence method, 251; phonetic, 252; phonic, 252; rational method, 253; a bad habit of, 254; learning words, 255; first words in, 255; use of cards, 260; of lesson to class, 264; helps, 289.
 Reasoning, 105; number work to develop, 305.
 Recess Gang, the, 116.
 Recitation, Chapters IX and X, 81, 93; three functions of, 81; securing attention during, 82; for whole class, 83; purposes of, 84; conclusions about, 87; mechanics of, 87; movement of classes to and from, 88; order of room during, 88; devices of, 93; methods of, 94; oral and written, 94; variety of, 94; goal of, 99.
 Record of issue for library, 134.

- Records, teacher's, keeping accurate, 196.
 Reports, importance of making promptly, 196.
 Reproduction stories, 279.
 Requirements, definiteness in, 145; showing reasonableness of, 145.
 Responsibility, placing, upon pupils, 166.
 Rhythm, 344.
 ROARK, Mr., excerpts from *Method in Education* by, 84.
 Rural education, a brighter day for, 4.
 Rural life, knowledge of, 51.
 Rural school, a laggard, Chapter I, 1.

S

- Salary, opportunity of teacher to earn, 200.
 Sanitary closets, 32-33.
 Saving time, 75.
 Scale drawing as seat work, 293.
 School and home, way to unite, 217.
 School City, the, 165.
 School, grounds, plan of, 7; plant, 11; government, Chapter XIV, 143; government, importance of, 143; government, aids to, 144; gardens, 175; maintaining good name of, 186; tests of good, 187; teacher's duty to teach good, 187; small contrasted with large, 222.
 Script, transition from to print, 261.
 Seating pupils, 35, 65.
 Seats for schoolroom, 27.

Seeds, how formed, lesson on, 173.
 Signals for classes, 88.
 Silent forces, 13.
 Singing, rote, 341; sight, 342.
 Site and grounds of school-house, Chapter II, 5.
 Slates, precautions in regard to, 30.
Sleepy-time Stories, a book for beginners, 129.
Small Songs for Small Singers, 342.
 Smith system of heating, 40.
 Social center, school as, 12, 22.
Song Development for Little Children, 342.
Song Primer, The, 342.
Songs of the Child World, 342.
 Sound mind in sound body, 45.
 Sounding words, 258.
 Spelling, 258.
 Standardization, of schools in Louisiana, 235; of schools in Minnesota, 236; of schools in Wisconsin, 237; of schools in Missouri, 238; of schools in Illinois, 239; requirements for, 240.
 Stories, of China, how to use, 131; list of Bible, 135; list for library, 141; reproduction, 279.
 Study, periods for, 73; how to, 101; importance of, 101; meaning of, 101; old plan, 101; teaching pupils how to, Chapter XI, 101; teaching beginners to, 102; hints on, 106; use of different sense organs in, 106; a thoughtful process, 109; motives in, 110; strenuous, 110; business of the school,

192; conditions favorable for, 193; little people cannot, 282.
 Substitution, application of principle of, 154; as a mode of inhibition, 153.
 Subtraction, a form for analysis of, 306.
 Synonyms and meaning of words, 264.
 System of writing, 315.

T

Tank, pressure in basement, 24.
 Tardiness, 188; devices for preventing, 189-190.
 Teacher, cottage of, 11; his personality, Chapter VI, 56; being taught, device of recitation, 93; personality, as factor in school government, 146; extension of influence of, 202; the non-singing, 338.
 Teaching, practice, 49; regarding as a stepping stone, 200.
 Testing, function of recitation, 81.
 Tests of a good school, 187.
 Textbook, not in hands of instructor, 90; for music, 338.
 Thinking, right, 162; number work to develop, 305.
 Thought getting, 104.
 Time, saving of, 75; element in the teaching Ethics, 163.
 Toilet rooms, in modern schoolhouse, 18; in Kirksville house, 24.
 Tone quality, 347.
 Tonsils, enlarged, 33.
 Trained teachers, 3.

Training, professional, 48; for rural schools, 49; function of recitation, 81.

Trees, kind to plant, 9; planting of, 9; for western plains, 10.

Tuberculosis, *see* Consumption, 28.

TURNER, Mr. CLAIR, on Recess Gang, 116.

Types, three of schoolhouses, 18.

Typhoid fever, 29; resulting from lack of sanitation, 32.

U

Unit, origin of district, 223; larger, 225; social value of larger, 226.

V

Ventilation, facts regarding, 37; by windows and doors, 39; modern systems of, 40.

W

Waste in work of schools, 71.

Water closets, screened, 8.

Waterman-Waterbury system of heating, 41.

Waves of fatigue, 74.

Window shades, manipulation of, 35.

Winter garden, 177.

Word books, how make, 292.

Words, many from one, 292.

Work for each pupil, 72; thoughtful, 104.

Workroom in modern house, 19.

Write, learning to, Chapter VI, 310.

Writing, an art, 310; first lessons, 311; when and how much, 311; materials, how handled, 314; position, 315; system, 315; movement, 316; analysis of, 317; period, divisions of, 318.

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